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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

SURGICAL TREATMENT OF INFANTS.

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Of Philadelphia.

(*Continued from page* 89.)

Hare-lip will early require the careful study of the surgeon, situated as it is upon the portion of the body that is most regarded in the *cosmetic* point of view. Its proper relief therefore becomes not only a matter of surgical skill, but of surgico-artistic taste. The time for the performance of the operation is a point upon which there is a wide diversity of opinion. My rule is to relieve the deformity within three or four days if it interferes with the proper nursing of the child. Practically I must confess, however, that by the end of the operation the milk has left the mother's breast, unless there is some other baby to maintain the flow. My preference is to wait about three months, until a full, vigorous activity of growth and cell-action is at work, and before the process of dentition has commenced. This period is selected not only for the reasons mentioned, but also because the child cannot use its hands as freely as at a later period of infancy, thus avoiding risk of injury. In one patient, a year old, diphtheria appeared on the day following operation, and in his convulsions all the pins were twice torn entirely from their fastenings and the fresh wound became implicated. In spite of such complication, an excellent result was obtained by holding the parts in position for days with adhesive plaster cut in the form of a triangle, sufficiently large to cover at its base the area from in front of the ear to the corner of the hyoid bone, with its apex prolonged at the width of the upper lip to meet a similarly shaped piece from the opposite side. These sections were united by a small elastic ring, which maintained a constant pull upon the tisues of the cheek, and controlled spasmodic muscular action. In fractious children I have now abolished pins and have substituted catgut sutures for the mucous surfaces, which, if of small size and tied in three knots, will remain in position until union occurs. For the skin edges I use carbolized, interrupted silk sutures, my reason for stitching the surfaces separately being that there is less linear depression of the cicatrix, and less constriction of tissues is thereby exercised than by pins and figure-of-eight, while if each set penetrate half-way through the lip antero-posteriorly the sphincter is thoroughly controlled. One of the stitches should pierce the coronary arteries. To prevent any pouching of the flaps or separation of the deeper parts by oozing, horse-hair drainage for a few hours answers the best purpose. Additional control of muscles should be given by adhesive plaster prepared as above indicated, or by strips, which should not only be applied transversely, but, in order to prevent strain, should commence upon the neck on either side, in front of the sterno-mastoid near the cornu of the hyoid, and run thence just above the angle of the mouth across the opposite malar to the front of the ear. If these are all put in position while the surgeon pinches the cheeks well together, he will find upon releasing his grasp that the minimum of tension is exerted upon the stitches. A still better plan is to have the nurse regulate this

muscular action for the first few days by pressure whenever the child cries or eats. Only by securing union by the first intention can we hope to have a narrow cicatrix; hence, I do not allow the child to suck, as is the practice with some surgeons, but prefer spoon-feeding as producing less disturbance. For the same reason, anodynes should be employed to control pain and keep the little one for a few days in a quiescent state. The child should be in the best possible condition physically, as quick union is desirable. To avoid the marginal depression so commonly seen and which is inevitable if the simple inverted-V incision is used, I never sacrifice any portion of the paring; but commencing the incision at the apex of the cleft, it is stopped just before it reaches the border of the lip, thus leaving a base of supply to nourish the flap which remains on either side. These two flaps, when the parts are brought together, project downward and form a fleshy prominence; but, if stitched nicely together, will unite, and from subsequent absorption during the next year will give a slight projection. Even should this be larger than desirable, it is far preferable to the ugly notch which cannot be corrected, since a simple scissor-cut will remove all redundancy and give a nearly normal lip. The same rule in regard to utilization of tissue holds good in complicated cases of hare-lip when it becomes necessary to save as much of the alveolus as possible. Broken or cut, it can often be worked to advantage in bridging the chasm or supporting a fallen nasal septum.

If *cleft palate* co-exists with hare-lip, an additional necessity for early treatment is present, since the closure of the lip will tend greatly to lessen the gap in the hard palate. Dentists realize more fully than surgeons how slight is the pressure required to act upon a tooth or upon the alveolar process; but a moment's reflection will convince any practical man that such narrowing can be accomplished, even if he has never witnessed it. In these instances, as in hare-lip and many other deformities, neglect is often as much the fault of the physician as of the family. An early operation upon the lip, strong pressure upon the maxillary bones, followed by the use of a Hainsby's compressor, will in a few years bring the cleft so closely together that a simple operation will unite the edges.

These are the considerations which influence me in advising that, while the lip should be closed early, the cleft-palate operation should be deferred until the plan has been tested. Few children from five to ten are tractable enough to endure the pain of a staphylorraphy without ether, which is desirable, and I see no particular harm in delaying the procedure until the latter period, save that the unused or malused muscles will require a longer period of education after closure. In a recent staphylorraphy upon a boy of sixteen, the letters of the alphabet could, however, all be correctly pronounced in three weeks, except the k and hard c sounds. If a good velum and uvula can be secured by union, the hard palate can be admirably assisted by an obturator. Only last week, by preliminary touching and the use of cocaine I was able, in a child of five years, to make the parings without pain, and thus avoided anæsthesia until hemorrhage had ceased; ether being employed for stitching only.

Tongue-tie is a condition that exists more frequently in imagination than in reality, yet the operation for its relief need be no more than the most trifling nick of the frænum, the finger completing the work. If the organ can be protruded to the red border of the lip, no operation is necessary.

Club-foot is a deformity which is frequently neglected, not alone from the apathy of parents, but, as is shown by the cases which come under my notice, far more frequently from the incomprehensible advice of the family physician, who has counselled that "nothing shall be done for the present." Weeks slip away into months, and months into years, during which time one set of muscular fibres and one set of ligaments have become elongated, while the opposite ones are atrophied, condensed, and shortened. Bones, too, have become distorted and wedge-shaped, and the difficulties have of course increased fourfold with each advancing year. I have never been able to comprehend any reason why delay should be countenanced a single day after birth, since manipulation and subsequent fixation can easily be accomplished at the first dressing of the child. I know of no words sufficiently strong to characterize such neglect of duty as is seen in numerous instances. Twice in the last three days have I had this matter brought before me by parents who have come to the office and who have given as the reason of their inaction that the physician had directed them to wait. Even before the age for walking, great condensation of tissue will take place, and increase of deformity will occur from simple pressure of clothing, but as soon as the weight of the body is brought to bear upon these misshapen members the change will be rapid. The secret of cure of club-foot lies not in operation, but in careful attention to all the means of relief.

At the first hour of birth, as I have said, manipulation should be commenced by bringing the foot from the abnormal into a normal position, or as near it as possible, and confining it there by wood, felt, binder's board, or leather splints, rightly adapted. At the next visit, leather, gutta-percha, or preferably, printer's blanket cinctures (*a* and *b*), should be laced upon the foot and leg, and connected by an elastic strap. The two-ply printer's blanket, with its rubber face, does not slip even when applied with only moderate tightness, thus being superior to other materials. Hook-eyelets are easily inserted by any shoemaker, and the lacing need not impede circulation. Manipulation can be practiced twenty times a day without taking off the apparatus, while removal at night gives opportunities for massage, frictions, etc. If co-operation of parents is wanting, plaster-of-Paris can be employed with excellent advantage for fixation, a gain being effected with each month's renewal of the dressing. Leather, felt, sheet-lead, and silicate of soda are of use, but do not permit removal for manipulation, and are, therefore, inferior to the bands already mentioned. Those bands, which permit of constant elastic traction day and night, are very inexpensive, if remnants are bought. Their use puts the successful early treatment of any case of talipes in the hands of the ordinary practitioner for the first few months of life. In cases which are of a severe type a subsequent operation is usually necessary, but the manipulation which has been practiced up to the time for tenotomy stretches condensed tissues and increases nutrition, so that relapse after division of the tendons will not occur if the same measures be continued subsequently. Failure after tenotomy is nearly always due to the neglect of manipulation. The special form of apparatus is far less important than a strict attention to details. The chief advantage of the shoe which I employ lies in the fact that it permits manipulation and stretching without removal, owing to its flexible sole-shank of upper leather, which acts as perfectly as a ball-and-socket joint, the force being exerted by an elastic strap (*b*) operating upon the foot through a cat-gut cord passing through the eye (*a*) attached to the upright (*c*). The eye-bearing arm is ordinarily constructed with too little of an outward bend. If I can control the patient, I rarely operate until the tissues are thoroughly stretched; but if the foot cannot be placed upon its plantar surface at eight or nine months—that is, when the age of walking arrives—tenotomy should be delayed no longer, since each step will increase the deformity. In operating, I divide every tissue that interferes with perfect straightening, whether it be tendinous or fascial. The tendon of the posterior tibial is an exceedingly difficult one to sever in a fat infant with poorly-developed heel. The puncture should be made just below the malleolus, and having placed the back of a tenotome towards the artery, division can be safely made. Tenotomes, as found in the shops, have too long a cutting-surface for infantile work, as the sharp edge will frequently enlarge the external wound unnecessarily. It is my practice to leave the tendo-Achillis until the end of the operation, in order to gain its fixation lower in the leverage required for stretching the parts into position—a procedure which is best accomplished at the time of operation. The amount of power which should be employed in this process is governed by the degree of resistance and the caution of the surgeon, especial care being taken that the force be expended only on the resistant tissues. In the class of cases with which this paper deals—namely, young infants—it is scarcely possible that tarsectomy could be called for, although an English surgeon has thus operated upon a sixteen months' old babe. I now use the gypsum-dressing entirely after tenotomy, since it is not only less expensive, but chiefly because it holds the foot and heel in much better position than is possible by any apparatus, and is less liable to produce sloughing, since the pressure is exerted over the entire surface. The instances where plaster produces a slough are always due to faulty application, mainly caused by some indentation produced during the setting process. If the bandages are smoothly and rapidly applied (salt having been been added to the water in which they are immersed), the surgeon can, by grasping the knee, hold it steadily in place, while with the palm of his other hand placed against the plantar surface

of the child's foot, complete rectification can be maintained until the plaster hardens, and without danger of depressing any region of the cast. A dossil of curled hair placed over the ball of the great toe, and over the prominence of the cuboid or astragalus, when confined in position by the flannel bandage enveloping the foot, will also assist in averting any harmful pressure.

I cannot too strongly emphasize my appreciation of plaster-of-Paris in the treatment of *fractures* in infants, giving, as it does, a perfectly-adaptable material, and yet, when hardened, securing an immobility of the injured part that permits free handling, provided the articulation both above and below the injury is included in the dressing. This is feasible even in fractures near the hip, since the splint can be made to encircle the thorax, and thus prevent the great motion that is always present if only the pelvis is fixed. No risk of injurious swelling need be feared, if a flannel bandage or a thin layer of cotton is first applied to the limb. It is better to saw open a dressing at the end of two weeks, and either tighten it or apply a new one. Silicate and other rigid dressings harden so slowly, the displacement may occur during the process. The fractures occurring during birth are often overlooked for several days, and the fact that the child moves a particular portion of its body freely is not proof that lesion of bone has not occurred. I have seen several instances of fractured clavicle in which the child indulged in most vigorous movements of the arm. These collar-bone breaks are quite common, either from falling out of bed or from careless handling, or from the playful jerking of other children. The under-waist of an older child placed in proper position over the well arm, and pinned tightly around the body so as to include the injured member, often keeps in place better in fat babies than a Velpeau bandage, especially if the hand is secured with a loop. Borated cotton should be placed in the axilla.

Green-stick fractures are best treated by etherizing the child and slowly straightening the bone by hand-pressure. Even should complete solution occur, the result will be good. A slight curve can be reduced by splint and bandage. Separation of epiphyses are practically fractures, and should be treated as such.

Dislocations do not differ from similar injuries in adults, save that they are even more readily replaced by manipulation.

The resultant deformities of *infantile paralysis* are numerous, and are frequently passed over by both physician and parents, under the erroneous impression that nothing can be done for the relief of these poor weakened members. Recognizing that restoration is best accomplished by massage, electricity, etc., and particularly by action, it is my rule never to assist a muscle if it is capable of permitting locomotion, or unless deformity is being produced by non-support. The following are considerations that determine the necessity for apparatus. If a bone is bending, or an articular surface becoming distorted, or a ligament yielding, or muscles becoming atrophied from excessive stretching, or if by applying a support the child can be made to walk, then I always order an apparatus which shall not take the place of the enfeebled muscles or put them in splints, at rest, but which shall render just enough assistance to enable them by hard contraction to accomplish the desired purpose. If rigid steel is used, they will soon relinquish their attempts at assertion of power and enfeeblement will increase. By a judicious adaptation of mechanical appliances, many who are now condemned to chairs and beds can be placed upon their feet. The advisability of tenotomy will depend upon the benefit to be gained by such a procedure. In many cases it will assist greatly in placing limbs in proper position for locomotion, and for this reason its mechanical effect should be thoroughly studied. My observation leads me to believe that it is employed too seldom. The excision and shortening of tendons by suturing is often of advantage. Any irregularity in the length of limbs should be counteracted, lest lateral curvature result.

Nævi, if situated upon exposed portions of the body, must be cured early in life if rapidly increasing in size, and in the majority of cases should be attended to before six months is reached. The question of excision, ligature, subcutaneous ligature, injection, electrolysis, or sun-heat, will depend upon situation, size, etc.

Webbed fingers and supernumerary toes and fingers will yield smaller resultant scars, if operated on during the first half-year of life.

Wry-neck may follow injury to the spinal accessory nerve during labor, or it may be found as a result of some of the exanthemata. If resistant to local and constitutional remedies, myotomy should be performed at the end of a year.

Spinal caries in young children can be retarded by placing the sufferer upon its back between two sand-bags, while passive motion is employed to develop muscular power. A jacket or cuirass may be added if bone-death is rapid, or if difficulty of retention is experienced. Horizontal extension is rarely necessary. I have occasionally seen

lateral curvature in weak infants, caused by the mother's habit of always holding them in one position, the reversal of which custom has, together with constitutional remedies, completed a cure. It may also be the result of a rachitic tendency, which will necessitate the appropriate medicinal and hygienic management. Simple posterior curvature and also lordosis are sometimes found, and should be closely watched, as other symptoms of that disease of malnutrition, rickets, may soon present themselves. Dorsal decubitus should be maintained until the proper treatment has had time to strengthen the child.

Rickets, fortunately, is seen upon this side of the Atlantic far less frequently than on the Eastern shores, and, I am thankful to say, is seldom found in Philadelphia even as compared with New York. In fifty thousand cases in our hospitals, I find that less than fifty are enumerated under rickets and its results, including knock-knee, bow-legs, etc. Its onset is usually within the first six months of life, but unfortunately many cases are not brought to the notice of the surgeon until one or two years have elapsed and great deformity has already resulted. When pronounced, the most rigid care should be taken to prevent the distortions from which no bone in the body seems exempt. The effects upon the female pelvis are most disastrous, as life is thereby endangered. The recumbent position is the only safe one, and must be maintained until the general remedies have time to act, passive motion meanwhile taking the place of active. The *tibial curves* are the most common defects. Very slight bowing is sometimes corrected in the growth of the individual, but we have no more right to expect that such a result will spontaneously occur than that a crooked tree will be blown into the upright position by chance winds. The proper means should always be used to compel rectification. If the bones are springy, then much can be expected from manipulation, pressure, and apparatus properly constructed. During the first two years of life we may confidently hope to accomplish a good result by such means, but in later childhood or adult life, if the deflections are great, the bones rigid, and especially if the curve is anterior, but little can be gained by these means, and osteotomy is the more certain and speedy means of relief. The risks of this operation, if done antiseptically, are but very slight, as the case, if sealed, becomes one of simple fracture. Plaster-of-Paris again gives us the best fixation after operation, and is very comfortable to the patient.

I approve of instruments in lateral bow-legs, but when they fail to secure straight limbs in the class of cases above mentioned, I firmly advocate operation. To permit the deformity to continue is not only unsightly, but also interferes greatly with the locomotive powers. It is not true that a bow-legged man is strong. He has, on the contrary, to use his limbs at a disadvantage, and if he is vigorous it is in spite of his complaint.

The question of *tracheotomy* in *young infants*, with whom our present discussion chiefly deals, is one demanding the gravest consideration, whether the dyspnœa originates from diphtheria or from true croup. So fatal are the results, that the mortality in babes below the age of six months is placed by some writers as high as ninety-five per cent.; and even taking all cases under two years, we cannot expect to save more than from ten to fifteen per cent. When we consider, however, that some English writers place the mortality of croup without operation at ninety per cent., we cannot believe that the operation has at least increased the number of deaths. Moreover, when cases are taken at the most favorable age and the most favorable conditions, we can scarcely hope to save more than twenty-five per cent. of all cases operated on. I have spoken thus in regard to prognosis, since some surgeons absolutely condemn the employment of tracheotomy for these young cases. I cannot feel, however, that they are absolutely hopeless, and if surgery can relieve them from the horrid death by suffocation we should not hesitate to give them the aid of science, although a true tracheotomy is well-nigh impossible in a young, fat infant, owing to the exceeding shortness of the trachea and the great size of the thyroid body. It is usually best to do an inferior laryngotomy (or crico-thyro-laryngotomy), making the opening through the crico-thyroid membrane, and also through the cricoid if necessary. The risk of hemorrhage is thereby greatly diminished, since while the crico-thyroid arteries may be cut, they will be far less troublesome to secure than will the vessels about the thyroid body or the middle thyroid artery, which often lies in front of the trachea. Again, the innominate artery may rise high in the neck, or a wound of a vein near the innominate may speedily kill the little one, as has happened in a number of instances even when the operator has been experienced. The fact that surgeons who have opened the wind-pipe several hundred times look upon this operation as an exceedingly difficult one, is proof that the utmost care is necessary. The danger of wandering from the median line may be partially obviated by having the child's head kept perfectly straight and

by placing the body in an exact line with the table. The trachea is sometimes missed because it has not been thoroughly cleared of everything before attempting to open it. The puncture should be made firmly but guardedly. The size of an infant's trachea will surprise one who has never studied it. Although I had given large and special study to the anatomy of childhood, both from the cadaver and clinically, my first tracheotomy case died on the table before I could insert the tube, my error being in trying to push the canula too far back. Unless the urgency is great, ether should be given in moderate amount and the operation carefully performed. A plunge into the trachea is never good surgery; in infants it would be worse than folly. If a circular piece is taken from the crico-thyroid membrane and cricoid, and a pilot used, introduction will be rendered more easy. In fat necks, the windpipe may be brought nearer the surface by extending the head far backward and by grasping the tube on either side and dragging it forward. If fixed thus in the median line, and retained continuously by an assistant, much time will be gained. In a recent case I found it wiser to go above a large thyroid body, even in a five years' old child, and insert the canula in the crico-thyroid space. There was afterwards a slight burying of the upper edge of the plate, owing to its high position, but a strip of sheet-lead obviated this difficulty. To arrest the venous hemorrhage, just before puncture, hot-water sponges answer admirably. After operation the temperature of the room should be kept above 80°. I have never opened the larynx to remove a foreign body in a very young child, but the universal habit of making the mouth the general receptacle of everything makes the introduction of such substances exceedingly probable at from one to two years.

Foreign bodies in the nose which cannot be seized, if not removed by sternutatories, should be always sought for with the aid of anæsthetics.

In the ear the opposite rule holds good, since consciousness of pain will often prevent an unskilled practitioner from doing great injury to the membrana tympani.

Joint-diseases are best treated by recumbency, with fixation or extension.

Excisions are rarely performed at this early age, and need not, therefore, be discussed.

I omit strumous and syphilitic diseases, and a score of other conditions which might well detain us for hours, since time forbids.

I have thus, gentlemen, hastily touched upon only the more frequent of the surgical maladies met with in daily practice among infants. Many of the suggestions may be already familiar to you, but even the brief mention which I have been allowed to bestow upon each subject may possibly have served to revive in your minds old and forgotten experiences, and thus be helpful. You will at least see that the field is a wide one, and that results are most encouraging.

1818 *Chestnut street.*

DISEASES OF THE SPINAL CORD.*

BY PHILIP ZENNER, A. M., M. D., OF CINCINNATI,
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The reason for preparing this paper was the great frequency and the difficulty in many cases of diagnosis. He thought frequent errors in diagnosis often due more to absence of knowledge of the leading factors upon which the diagnosis is based than to the obscurity of the symptoms.

In proof of this, and to present the subject in a practicable manner, he presented cases selected from his case-book. In these cases errors in diagnosis had been made by men of prominence. We can see in these cases the salient points in the diagnosis, and illustrate the ease with which mistakes are made.

Case 1. Mr. W., æt. 38, had been treated for rheumatic pains. History of frequent paroxysms of severe lancinating pains in the lower extremities for several years; also, various anomalous sensations, numbness, and fomication in the limbs, a sense of constriction about the waist, etc. Found some impairment of sensation in the lower extremities, a degree of insecurity on the feet when the eyes were closed, an absence of the patellar tendon reflexes, and impairment of the gait, which was worse at night. The symptoms in this case were so pronounced that there was no excuse for an error in diagnosis. The diagnosis of locomotor ataxia is based upon the history of characteristic lightning pains, peculiar sensations, and difficulty of walking at night, with localized anæsthesia, inability to stand firmly with closed eyes, and absence of patellar tendon reflex.

Yet cases occur in which the diagnosis cannot be so readily made. The following symptoms, even at an early period, will enable us to make a positive diagnosis. There are the characteristic lightning pains, the absence of the patellar tendon reflex, and certain ocular symptoms. These latter are transitory paralysis of some of the ex-

* Abstract of paper read before the Ohio State Medical Society at Dayton, June 4, 1885.

ternal muscles of the eyes, causing double vision the so-called Argyle Robertson phenomenon, the pupil being small, not responding to light, but contracting during the act of accommodation, and more rarely atrophy of the optic nerves. One other early symptom to which probably too much importance has been attached is the Brach-Romberg symptom, inability to stand firmly with closed eyes.

Case 2. Mr. K., æt. 35. Difficulty in walking for six years past, also slight bladder symptoms. Locomotor ataxia had been diagnosed, but the conditions presented were quite different from locomotor ataxia. The gait was feeble, not ataxic, with often a feeling of stiffness in the limbs. Patella tendon reflexes exaggerated, also the foot clonus could be elicited. The three cardinal symptoms in locomotor ataxia were not present. The swaying of the body when endeavoring to stand erect with the eyes closed was present. This is, however, often misleading. In locomotor ataxia the posterior columns are the seat of disease. In this patient the changes were in the antero-lateral cords, the disease usually termed lateral sclerosis. Its symptoms are motor paralysis, rigidity or spasmodic contractions of the muscles, and exaggerated tendo-reflexes. You may say there is little practical difference, and nice diagnoses are not necessary, but the difference is of considerable consequence. The subjective symptoms of locomotor ataxia are severe, those of lateral sclerosis insignificant, while the prognosis of the latter is decidedly better.

Case 3. Mrs. U., æt. 30. Observed weakness in lower extremities four years ago, was unable to lift her feet in walking as well as formerly, nor rise easily from a sitting to a standing position. Weakness later invaded the deltoid, biceps and quadriceps femori of both sides, as well as many of the muscles of the back. The patient's manner of attaining the erect position was especially noticeable. To extend the knees, she pressed the hands upon the thighs, then raised the trunk by means of a chair. This effort produced a remarkable curving of the spine in the lumbar region. One physician suspected disease of the vertebræ.

In this case there was, in addition to the paralysis, atrophy of the muscles and loss of electrical excitability. This latter is a point of much importance. These, together with the history of gradually extending paralysis, are quite enough to diagnose progressive muscular atrophy, though in this case the development was an unusual one.

Case 4. Mrs. L., aged fifty-two years, had been operated upon for carcinoma of the mammary gland. Eight months later, severe pain like that of intercostal neuralgia occurred. Subsequently, severe pain in the lower extremities, hyperæsthesia of the surface, and paraplegia, with some atrophy of the muscles of the legs. Myelitis had been diagnosed. Author emphasized the gradual access of the symptoms, the severity of the pain seldom, if ever, found in ordinary myelitis, and the history of previous malignant disease. Upon these facts he made the positive diagnosis of malignant disease within the vertebral canal and prognosis of a fatal issue within a year. The subsequent history strengthened the diagnosis. Patient died in nine months. Post-mortem showed numerous carcinomatous nodules both in the vertebra and in the cord. The earlier manifestations were quite sufficient to make a correct diagnosis. Paraplegia, with pain so severe that paraplegia dolorosa has been used to designate it, is rarely, if ever, found, excepting with malignant disease. A previous history of this disease should leave no doubt of the diagnosis.

A few cases of neurasthenia would contrast well the functional and organic diseases of the cord, but would occupy too much time. The essential thing is to exclude organic disease. If a patient comes to us with a history of pains, weakness, or anomalous sensations pointing to the cord, we should examine as to the presence of ocular symptoms, as to the condition of the cutaneous sensibility, as to the tendon reflexes, and the action of the bladder and rectum, and the kind of gait, to know of the presence of locomotor ataxia. We should then examine further to see whether any motor paralysis, with increased tendon reflexes and rigidity of muscles, point to disease of the motor columns of the cord. Or paralysis and atrophy of the muscles, with altered electrical reaction, point to affection of the gray matter. If all these symptoms can be excluded, we are probably in the presence of only a functional disease, which, with time and proper treatment, can be entirely removed, and whose positive diagnosis will bring immediate mental relief to an anxious, perhaps despondent sufferer.

—In the *Brit. Med. Jour.*, June 6, Dr. J. Fourness-Brice says the number of cases of ague and insanity which make their appearance in the emigrant ships crossing the North Atlantic is simply astonishing. If latent in any individual, they almost always develop themselves at sea; and practitioners on shore do not appear to be aware of the fact, as he finds that in nearly every case the patient has been recommended to "try the effect" of a sea-voyage by his medical attendant.

Hospital Reports.

MEDICO-CHIRURGICAL COLLEGE OF PHILADELPHIA.

CLINIC OF PROF. J. E. GARRETSON, M. D.

Reported by THEODORE STANLEY, M. D.,

Resident Physician to Medico-Chirurgical College Hospital.

Ablation of Half of Tongue.

The disease affecting the patient now in presence of the class is epithelioma located upon the side of the tongue, and, as it is proposed to remove the lesion by an operative procedure, it is desirable that the class appreciate the indications and justification of such a performance; this, particularly in face of the undeniable fact that few operations for cancer of the tongue result in any good.

On extrusion of the organ by the patient, it is seen that while the ulceration involves a large part of its right side, there is a ridge-line of demarcation which has entirely prevented encroachment upon the oral floor. It is to be noticed, further, that there is absence of the diffusive expression; that is to say, the ulcer seems to contain the whole manifestation of the disease. Still, again, feel where we may about the neck, no enlarged glands are found. Once more, there is absence of cachexia; the face of the man blooms in healthful ruddiness, his limbs are round in their paddings of fat.

I now contrast the condition of the present patient with two other cases which happen to be in the hospital.

* * * The three men are now before you. The one whose condition has been considered is young. The two just brought in are old. Epithelial cancer is malignancy itself, and it is common in the aged. In the young, the condition is rare, and it is abeyant. The cases of the two old men are helpless and hopeless; surgery is without power to do more than ease the way. The passage from Carneades applies—

> "Nature did make me, and she does together keep me still,
> But yet the time does come when she will pull me all to pieces."

The pulling to pieces has commenced. Observing diagnostic and prognostic features, you will remark that neither old men can respond to a request to project the tongue. Both speak with an indistinct mumbling utterance. Both show large and hard swellings below the jaw. Both have cachexia, manifested in a cadaverous expression.

Looking next within the mouth, it is noticed that specific ulcers exist which involve the tongue, oral floor, tonsils, and soft palate; no lines of demarcation are anywhere to be seen; infiltration is without boundary.

If these two old men, worn out and suffering, were philosophers of the academic school, it would be an occasion of rejoicing with them to learn that an end was drawing near—end which is ever the beginning of a new end. What a good to these two old men would it be if we could make them comprehend the remark of Plato: "From the dead, Clebes, living things and living men are produced."

Once upon a time I wrote, myself, something to the same effect. "Hard is the fate of mortals," sighed a locust, as he felt his efforts all too feeble to resist the unseen something which was thrusting him out from what he called himself; but on another day coming back and beholding the dry shell that still adhered to the tree—the old shell which had grown so crusty, and hard, and colorless, and which had so cramped and so constrained him—he said to a companion, "How great a fool is a locust?"

Ovid puts into the mouth of Pythagoras some meaning lines in the direction of our digressing thoughts:

> "Death has no power the immortal self to slay,
> That, when its present body turns to clay,
> Seeks a fresh home, and with unminished might
> Inspires another frame with life and light.
> So I myself (well I the past recall),
> When the fierce Greeks begirt Troy's holy wall,
> Was brave Euphorbus, and in conflict drear,
> Poured forth my blood beneath Atrides' spear;
> The shield this arm did bear, I lately saw
> In Juno's shrine, a trophy of that war."

I see the direction in which your eyes are turned. You conclude right. Coca and morphia, not philosophy, will best meet the indication as to euthanasia. It is, I accept, a truth, that only the initiated of the Epictetian school may comprehend the truth that "*the body is an external.*" Truly is ignorance the evil, the only evil of the world. There is little difference between our ignorant man and a locust.

Yet how comparative a thing is learning: euthanasia in the present example for the old men, immediate cure for the young man. Knowing no specific for cancer, we are at absolute loss when the vice lies hidden in the deep parts. We are able alone when the length of a knife-blade can reach the extent of a lesion. We have no help for the old men here in our presence because the disease lies deep. We will cure the young man, because the trouble limits itself to the surface.

Understanding why we operate or refuse to operate, I proceed to the treatment of the young man. An ablation of the tongue, or any part of it, is accomplished by means either of knife, scissors, ecraseur, or ligature. In the present instance I will employ both of the latter named means, with a view of exhibiting the ease with which a comparatively complicated thing may be done.

The intention is to remove one half the tongue. In my hand is a heavy and curved needle of blunt point having a large eye. Here is a stout and waxed thread, having attached, near the end which I shall relate to the eye of the needle, the chain of an ecraseur. The probe-pointed needle being threaded, I take up a long and curved bistoury and pass it through the tongue from below upward and backward until it emerges at the root of the organ. This knife held in place, I follow the line of its blade with the curved needle, and as this emerges at the dorsum, the blade is withdrawn. Next, chain and ligature are pulled through, the needle being unthreaded and the ecraseur detached from the twine. Let it be now observed that a double means of strangulation is possessed, namely, ecraseur and ligature. As it is a succeeding intention to cut with these means at right angles (with the ecraseur longitudinally

from base to apex along the median line, and with the twine from base to side), it becomes necessary to secure fixedness to the chain and thread, which object is attained by the use of needles in positions indicated, the strangulating means being cast over and to the outside of these.

* * * Things being now in condition for the ablation, a loop is threaded to the apex of the tongue, and as the organ is pulled forward out of the mouth, you are to observe that there is included within the ligatures just one-half the body. So far, we have little blood and less trouble. The completion of the operation consists in the gradual tightening of chain and thread and a consequent slow separation of the parts. * * * The portion is away. Two unnecessary spurtings of blood confront us. The time has been ten minutes; it should have been twenty. The object of strangulation is to crush, not to tear; we have done part of both. The operation is complicated by a necessity for ligating two vessels, a matter not difficult of accomplishment, however.

After-treatment of the case will consist simply of a mouth-wash, pretty constantly employed, made up of equal parts of phenol sodique and water.

Amputation of Breast and Removal of Seventeen Axillary Glands.

The lady lying anæsthetized upon the table, is afflicted with a tumor of the breast, diagnosed carcinoma. The diagnosis of a neoplasm lies with the process of exclusion, while the use of this process lies, in turn, with the possession of an understanding which enables one to say positively what a thing is not. This patient having had the benefit of a consultation with a number of the members of the faculty, none of whom find explanation for the presence of the lesion in familiar derangements or perversions, a conclusion as to its cancerous character is to be accepted as irrefutable.

A neoplasm is a new formation, that is, it is a formation out of correspondence with normal histology. Tumors having their existence in anatomical or physiological perversions, as for instance the head of a bone out of place, or a cyst of retention, have in themselves their own explanation; this not only as character, but as requirements for cure, are concerned. A neoplasm is an arcanum; what surgeons know of it relates simply with crude matters of clinical signification and histological appearances.

It is unsatisfactory not to know all. It was a remark made by Galen that the cause of toothache is known alone to God. Here it is that surgery stands in relation with carcinoma; there is not a single solid reason existing with the profession that casts any light on the subject; cancer is cancer; treatment is mechanical or it is nil.

A class of inexperienced students has very much to learn, however, about phenomenal expressions associated with neoplasms. Some are quickly fatal, others are slowly progressive. Some are hard, some soft. Some are acutely painful. Some poison to the point of death, a local existence all the time undiscovered, perhaps unsuspected. Some run pus, some blood. In some is heredity. Some attach themselves to the healthiest families and constitutions. In a word, rule is absent.

Cancer is studied clinically, as diagnosis is concerned, only in estimating properly the value of the process of exclusion referred to. We say that a tumor is a cancer by demonstrating that it is not anything else. Yet it will be comprehended that the ability to say what a tumor is not, implies necessarily a knowledge of all the known possibilities of a part. It is the manner of the process, however, which makes the matter easy. If, to make an example, a tumor be situated upon a toe, we begin by satisfying ourselves that it is not a common corn, and so on to the end, by exclusion.

As a rule, cancer is to be removed in its very infancy or it is to be let alone. The track by which a neoplasm finds its way into the system, is that laid by the lymphatics. When a gland is found enlarged it is well to accept that the original tumor is no longer a boundary of the disease, and when once the original boundary has been passed, it becomes all guess-work to say where it has even temporary re-establishment. Not long since I followed a chain of these lymphatics from a breast to the axilla, and from here to the subclavicular region, and after removing twenty-three lost them, as they disappeared in the bronchial region, the patient dying later from cancer of the lungs.

In removing the mammary gland, where probable pathological relation with the lymphatics exist, note is to be made of the fact that the vessels run from the gland to the axilla, and that the incisions are to be in consideration of this anatomy. In the present instance I start my cut at the sternal aspect of the tumor, and carry it outwardly and upwardly to the axilla. A second cut, made after the same fashion, exposes the breast in an ellipse. I proceed now to turn out the gland from the sternal side, including in that which I turn out even the superficial pectoral fascia.

* * * Remark now that I have lifted the gland from its bed, but that it is related with the axilla by a confused mass of string-like tissue. Here are lymphatic vessels, and now that a finger can be carried deeply into the arm-pit, I am led to understand by the marble-like bodies felt that I am not to cut away the mamma, but am to follow the lymphatics until I shall pull out and remove every enlarged lymphatic gland felt.

Please notice that, with the aid of my clinical assistant, I am bringing out gland after gland. * * * * Until now we count seventeen, which completes the operation.

Caries of Both Tibiæ.

Our next case is a patient kindly directed to our care by Dr. Prince, where the heart and a portion of the shafts of both tibiæ are involved in specific caries. Constitutionally the cure of the man lies with the gentleman sending him to our clinic. Our office is with the local disease, and the opportunity provides further display for the capability lying with the surgical engine.

NOTE.—Cure of this case was so rapid that the patient was able to leave of himself the hospital on the succeeding Thursday, the operation having been done on Saturday.

NOTE.—This young lady went to her home, unattended, in the State of Maine, at the end of three weeks.

The patient being etherized, I now proceed to expose the affected bones by slits made in the soft parts. Next, using a bur, I open into the tibia, finding, as you see, a honey-comb mass of diseased bone. With the means at command, nothing is easier than the removal of this mass. Note that I am using a bur made up of twenty blades, and which is being revolved at the rate of ten thousand revolutions to the minute. You will observe that even with this immense speed of the instrument, I direct the mandril which holds it precisely as one writes with a pen.

I complete the operation by the free use of a syringe, which, as you see, brings out of the holes quantities of bone debris and dust.

Broken Humerus.

A broken humerus, uncomplicated, needs scarcely more than the show of a chance to come to speedy cure. The indications are, as the class well understand them, to approximate the ends of the bone and retain them immovably in apposition.

This boy broke his arm last night, as he tells me, by a fall from a hay-mow. You observe that there is no swelling, no complication, but that the arm is broken I determine by the crepitation which all hear by listening.

I dress this arm in a simple fashion that any one can imitate. First, I straighten the part, which means setting the bone. Second, I throw around the injured part the turns of a roller. Third, I cut and fit two pieces of wet pasteboard, composing a ferrule to the part and which I bind in place by a second roller. Fourth, I bind the arm against the side. Fifth, I put the forearm in a sling. This last completes the dressing, and I will leave it undisturbed for a week, provided no undue swelling takes place. Next Saturday I will re-dress the case, with a view to showing some other equally simple manner of accomplishing an end. The less frequently a fracture dressing is replaced, the better is likely to be the result.

MEDICAL SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Thursday evening, April 23, 1885. The president, Dr. E. O. Shakespeare, in the chair.

Notes on the Morbid Anatomy of Pneumonia.

Dr. Osler read a paper summarizing his experience while Pathologist at the Montreal General Hospital. Of 105 autopsies in cases of lobar pneumonia of which notes were available, five were discarded for various reasons. The mortality at the hospital is high on account of the large percentage of grave cases which are admitted, very many in persons debilitated and dissipated.

Of the 100 cases, 70 were males and 30 females. Of 94 instances in which the age was given, there were 11 cases under 20 years, 12 between 20 and 30 years, 18 between 30 and 40 years, 21 between 40 and 50 years, 12 between 50 and 60 years, and 20 cases over 60. In 51 cases the right lung was affected, in 32 the left, in 17 both. Other details were given of the various lobes affected. The heaviest lung weighed was 2303 grammes, and in eight instances the affected organ weighed over 2000 grammes. In about 50 per cent. of the cases there was red hepatization, in 30 per cent. mixed red and grey, and in about 20 per cent. grey hepatization. The condition of the pleuræ, air-passages, bronchial glands, and unaffected portions of the lung tissue, were described. Among the terminations there were four instances of abscess formation, three cases of gangrene, and one in which there was a process of fibroid induration beginning in the lung. This case was a man aged 55, admitted with pneumonia of the right lung, five days after the initial chill. Resolution did not occur, and he died in the fifth week.

Post-mortem.—The right lung was found solid, greyish in color, and in many areas the tissue had a smooth, homogenous, translucent aspect, and in these a fibroid change was going on; the alveolar walls were thickened, and the fibrinous plugs in the air-cells seemed undergoing transformation into connective tissue (a slide was shown illustrating this). There were no caseous portions, and no tubercles.

As to the other organs, the frequency with which large, firm clots were found in the heart was specially dwelt upon. In only 35 instances was the spleen much enlarged. In one it weighed 670 grammes. In 25 per cent. there were marked fibroid changes in the kidneys. Of the complications, there were 5 cases of pericarditis and 16 cases of endocarditis. In 8 instances the meninges of the brain were inflamed, in 5 of them associated with ulcerative endocarditis. In 5 instances there was acute croupous or membranous colitis, and, in one instance, croupous gastritis.

Dr. Tyson, in the discussion of Prof. Osler's paper, said that he had been rather incredulous of the termination of croupous pneumonia in fibroid induration, but the specimen exhibited by Dr. Osler demonstrates conclusively that such a condition exists. The facts presented in the paper are such as are not generally collated. Collective reports of autopsies in cases of particular forms of disease would be of great value in the study of pathology.

Dr. Formad asked Dr. Osler why his was not a case of acute phthisis. Croupous pneumonia is a very common accident in acute phthisis. It is croupous pneumonia which causes death, which is well shown by recent investigations of Mercur, of the University of Pennsylvania. Dr. Formad did not believe that croupous pneumonia can last five weeks.

Dr. Shakespeare said that the remarks of Dr. Osler about the frequent existence of very firm clots in the right heart, extending into the ventricles, can be corroborated by any one who makes autopsies of cases of pneumonia at hospitals. He had seen them in cases of phthisis quite as extreme and firm, reaching into the vessel going to the affected part of the lung. It is interesting to note the systemic involvement of these cases of croupous pneumonia and the affection of internal organs as well as lungs in the process which has been regarded as a local disease. We have to do with a general, wide-reaching affection rather than local inflammation. The opinion was advanced by Dr. Osler that the exudate in the air-cells organized, that the process in the organization of the croupous exudate is similar to that in the clot in arteries after ligation, and that com-

parison was the point which Dr. Shakespeare wanted to bring out. Dr. Shakespeare said that he did not believe that a blood-clot in a vessel ever organizes, and his opinion is based on facts detailed in an investigation which he has published on the healing of arteries after ligature. The vessel healed not by the agency of the white cells caught in the meshes of the reticulum, but by proliferation of the endothelium of the tunica intima and subjacent connective tissue cells. He thought there was reason to believe that there is in this process in the lungs an analogue of the process after ligature.

We have to do with an outgrowth of the inter alveolar walls. The ground which Dr. Shakespeare takes is purely that of analogy to the process in a blood-clot in a ligatured artery.

Dr. Osler, in closing the discussion, said that it was well known that croupous pneumonia might persist five or six weeks, or even longer, before resolution took place. It was difficult for any one who had not had the experience to realize the anxiety which such a case would cause. He had reported two such cases of delayed resolution, one in the fourth week and one in the eighth, both with perfect recovery. He was quite aware of the difficulty in distinguishing certain cases of acute phthisis from pneumonia, and had seen a case with Dr. Ross, in which the diagnosis was for some time in doubt; but in the case in question, the person had been under observation from the outset, and the symptoms were those of ordinary pneumonia.

Post-mortem.—There were no caseous masses, no miliary tubercles; only the condition already described. The termination in fibroid induration, though rare, was perfectly well recognized. In Cornil and Ranvier's Manual, as well as in Green's Pathology, was a figure which might have been taken from the slide under the microscope.

Dr. M. H. Fussell, of Manayunk, presented specimens from a case of

Primary Tuberculosis of the Kidneys.

The reporter never saw the subject alive from whom the specimens were removed, having performed the post-mortem examination for a friend.

Case of Edward B., æt. 40, single, by trade a paper-maker. In following his calling, he was forced to stand in a dust-loaded atmosphere from morning until night. He worked at this trade from boyhood, steadily, with the exception of four years during the late war. His grandfather died of bladder trouble; his father died of apoplexy; his mother, brothers, and sisters are all living and healthy. He was always a robust man; his weight was 170 pounds, and he never had any serious illness; he had gonorrhœa during the war. Four years ago, while in camp, he made a misstep and fell. The next morning he passed much blood in his urine; previously to this he was perfectly well. From this time until death he was troubled with slight pain in his loins and with frequent micturition; his urine was sometimes bloody, sometimes milky. The patient's bladder finally became incontinent, and he was forced to wear a urinal.

The patient's general strength did not seem to suffer until the past six months, when he began to lose flesh and strength, and at death he was much emaciated. He had never had any cough or diarrhœa. Two weeks before death he began to vomit; this increased in frequency until he was unable to retain anything on his stomach. Just before death, the breathing was rapid and full. The patient was very restless, vomited, and passed urine freely. The pupils were dilated.

Dr. Fussell examined the urine several times. The sp. gr. ranged from 1.002 to 1.010. Large amounts were passed. Albumen was present. The microscope showed pus, blood, and granular epithelium. Many of the cells were irregular in shape, the pyramidal form predominating. No casts were found at any time. Unfortunately a critical physical examination of the patient was never made. At different times surgeons had sounded him for stone, and had failed to find any.

Post-mortem.—Nothing especial noted on the exterior of the body.

Thorax.—Heart about normal in size. The muscle looks normal, and contains a large amount of fluid blood and currant-jelly clots. A small decolorized clot on the left side. Valves normal.

Lungs.—Both pleural cavities obliterated. The pleuritic adhesions were tough, the lungs being with difficulty torn from the cavity. In places, the pleura was much thickened. The surface of both lungs was studded with miliary tubercles. On section, the lung substance was crepitant, and studded with myriads of miliary tubercles. No caseous masses nor cavities were found in either lung. The bronchial glands were enlarged, not caseous.

Abdomen.—Viscera in normal position. Peritoneum free from tubercles, and of a healthy look.

Liver, of normal size and color. Over the surface a few stellate cicatrices noted, but no tubercles seen on the surface nor on section of the organ. The bile ducts free.

The *stomach* contained greenish-black fluid; the mucous membrane of a greenish color corresponding to the contained fluid. The rugæ were much enlarged, especially at the cardiac end. Near the pylorus there was a small injected spot.

Kidneys.—The right measures six inches in length and three in width, and is of a reddish hue; the surface is studded with tubercles; on stripping off the capsule, the larger of these remain with the kidney structure, while some of the smaller ones are torn off. On section, the cortical substance is seen to have a thickness of about one-third of an inch. Numerous foci of softening are seen. Three are of the size of a nickel five-cent piece. There are very many smaller ones, situated mostly in the pyramids. Numerous miliary tubercles throughout the substance of the kidney. The foci of softening are evidently due to breaking down of the tubercles. The ureter is dilated, measuring half an inch across in some portions. The mucous membrane is ulcerated. The pelvis of the kidney is not dilated, and shows miliary tubercles.

The left kidney is large, and is converted into five or six cysts. There is but little kidney substance remaining. The surface of the kidney is studded with a few tubercles. The cysts are lined by a thick leathery membrane, which can be stripped from the kidney substance. On puncturing the cysts, a perfectly clear serous fluid at

first escaped, soon followed by a milky substance containing some cheesy masses. The pelvis is smaller than normal, the ureter entirely occluded.

The supra-renal capsule had undergone degeneration, and is of a uniform yellowish-white color and presented tubercles.

The *bladder* was slightly contracted; the mucous membrane ulcerated; the muscular coat being exposed. The vesicle trigone was of vivid red color, and studded with miliary tubercles.

The *intestines* were normal; no enlargement of lymphatic elements. The mesenteric glands were slightly enlarged. The prostate gland and spleen were not examined.

Prof. Wm. Osler kindly made sections of the kidney and supra-renal capsule, and the REPORTER is indebted to him for the following report:

1. Extensive, widespread, small-celled infiltration between tubules and malpighian tufts.

2. Distinct miliary tubercles, with centrally-placed giant-cells.

3. Areas of softening and disintegration. Tubercle bacilli carefully sought for, but only two undoubted specimens found.

Supra-renal capsule showed miliary tubercle with centrally-placed giant-cells.

Dr. Formad referred to a similar specimen which had been exhibited by Prof. Tyson at a former meeting of the society.

Dr. Osler remarked that Dr. Fussell's case corresponded in all essentials to what we know as tubercular nephritis. The bacilli, however, were scarce and difficult to find. Since the report of Dr. Tyson's case a few weeks ago, he had had occasion to look over the notes of several cases, and found that they formed a complete series, from cases of unilateral disease to instances with tuberculosis of the entire urinary tract, and general infection. The condition was not infrequently met with accidentally in persons dead of other affections.

Tubercle Bacilli in the Urine.—Dr. Osler showed a slide of pus from the urine in another case of tuberculous kidney, with the tubercle bacilli stained.

The president, Dr. Shakespeare, reported a case of

Intestinal Stricture.

The patient was admitted to the Philadelphia Hospital one week previous to her death, under the care of Dr. Evans, the house physician. She had obstinate constipation, followed by stercoraceous vomiting. She suffered acutely, lapsed into an unconscious state, and died, all treatment proving ineffectual.

At the autopsy, the thoracic organs were found apparently normal. In the right iliac fossa a lobulated tumor was apparent on opening the abdominal cavity. The colon was distended with gas in the transverse portion, and in the descending portion was narrow. The ascending and transverse portions had hardened fæces. There was a double twist of the intestine, and two strictures—one in the ileum, two inches above the ileo-cæcal valve, and one two inches below the valve. They would not admit the finger. There was a ring of hardened tissue in each stricture. There was congestion of the mucous membrane in the small intestine, and adhesion of the first part of the ascending colon on its under surface to the abdominal parietes. The kidneys were normal. A large tumor of the right ovary was also present, attached to the uterus.

Dr. Formad, who made the autopsy, remarked that acute peritonitis had in this case become chronic, and that it was the contraction which made the strictures. The cause was probably the abdominal tumor. He was not aware that there was a case on record where a tumor produced stricture. The donstriction was due to outside pressure.

PHILADELPHIA CLINICAL SOCIETY.

Stated meeting, June 26, 1885. In the absence of the President and Vice-Presidents, Dr. Charles K. Mills occupied the chair.

Dr. D. M. Barr reported a case of

Carcinoma of the Uterus,

in which the patient had resorted to the "faith cure."

Early in January, 1879, I was called to see Mrs. S., aged forty-six years. She had been suffering at intervals for the last few months from severe uterine hemorrhages. On examination, per vaginam, there was found a cauliflower excrescence involving the posterior, and part of the anterior, lip of the os uteri, but not involving the vagina. An operation was decided upon, and in the presence of Drs. C. A. Groff and J. G. Heilman, the cervix uteri was removed, close to the body, by means of an ecraseur. The wound healed kindly without leaving any trace of local trouble. For two years and a half the patient enjoyed good health, having no evidence of trouble, but she always had some mental forebodings. At the end of the third year some hemorrhage occurred, and examination revealed granulations of a specific character apparently involving the entire endometrium. An application of Vienna paste was made, thoroughly cauterizing the whole surface; the symptoms were thereby arrested, and the patient enjoyed good health for another year, making *four years* of good, vigorous health, when hemorrhage again occurred. Examination now revealed a marked epithelioma, involving the vaginal walls, the body of the uterus was enlarged, and evidently, also, involved in the trouble. Palliative means were resorted to, but there was no hope of eradicating the disorder. The patient became greatly alarmed, and although there was but little hemorrhage and no pain, she sank rapidly, refused all nourishment, and gave every evidence of a speedy dissolution. At this point she made arrangements for the "faith cure"—sought the prayers of a circle and was anointed, after which she declared herself cured. Her general condition improved, and when I met her three months later I did not recognize her, so much better was she looking.

For about a year her health seemed good, and she was able for almost any exertion, but at the end of that time she began to experience some languour, was more easily fatigued, and gradually failed. One day after she had been suffering very severely, I was called to her; found a distended bladder, and upon passing the catheter the patient was relieved. Upon investigation, I found the cancer had never been healed, nor its progress

in any way arrested; it was now filling the pelvic cavity, and the enlarged uterus reached above the umbilicus; this great increase in size having occurred in about two years, the growth having steadily gone on, notwithstanding the apparent cure, and the really vigorous life which the patient had enjoyed during the past year. She died soon after I was recalled. The tumor in itself was painless throughout the entire period of its growth, death being induced chiefly from its pressure upon the neighboring vessels, firm adhesions being formed between the two.

In the discussion which followed, several cases were related by different members of the society, in which persons had resorted to the "faith cure," some of whom were *apparently* cured, or at least relieved for a time.

Dr. Charles P. Turner said that he had known of several cases of nervous inertia which seemed to be cured by the influence of a strong will over a weak one; many of these cases, however, had gone back to their former condition, as this influence wore off. He would believe in the "faith cure" when he saw a case of tuberculosis or cancer cured by that method, and not until then.

Dr. Edward Montgomery said that the cases were of a nervous or hysterical character; such persons come under the influence of some one who has a powerful influence over them, and are made to "arise and walk," and are then reported as *cured*. He related the case of a lady having some organic heart trouble, who wished to try the "faith cure," but the examining physician told her that such cases were not benefited by that method of treatment. So it seems that the cases which Dr. Turner wishes to see cured in order to be convinced of the efficacy of the "cure," are the very ones which are not treated in that way.

Mary Willits, M. D.,
5107 *Germantown Ave.* Recording Sec'y.

Editorial Department.

Periscope.

Case of Eczema Following the Course of the Small Sciatic and Short Saphenous Nerves.

Dr. Frank Shearar thus writes in the *Glasgow Med. Jour.*, February, 1885:

This eruption is a very interesting one, because of its exceptional character, its evident neurotic origin, and its lengthened duration. It is essentially eczematous in its nature; it extends, as a continuous ribbon-shaped band, from the left buttock to the base of the little toe; it corresponds, to a considerable extent, with the courses of the small sciatic and short saphenous nerves; it has been in existence, in part at least, for nearly eighteen months; it began without any apparent cause, and it has not been associated at any time with neuralgic pains, or with any alteration in sensation.

November 27, 1884.—The subject of this peculiar eruption is a thin, but fairly healthy, boy of thirteen, who has never hitherto suffered from any neurotic affection. Nearly eighteen months ago he noticed that the skin behind the knee-joint had become thickened and roughened, and that it was red and itchy. This condition slowly extended downwards to the prominence of the calf and upwards to the buttock, and latterly, within the last six months or so, it has spread still farther downwards to the little toe, and for four or five months it has undergone little or no change. As it spread, it was red, itchy, and leeted a good deal.

At present the appearance of the eruption is very striking. It is dark red in color; it is covered in many parts by thin scales or scabs; it is distinctly raised above the general surface of the skin; its margins are well defined; it extends as one unbroken band from the buttock to the toe, and the neighboring skin, except at a few points, is perfectly healty. Its breadth varies from three-sixteenths of an inch to two inches. It is broadest on the most prominent part of the buttock, and here its appearance suggests the idea that it has become frayed out into three diverging portions, each little narrower than the parent stem, and separated at their upper extremities by little V-shaped patches of healthy skin, the outer division reaching higher upon the buttock than the middle one, which, in its turn, extends higher than the inner one. At the margins above there are some smaller isolated patches. From this head, the stem of the eruption extends downwards, with a slight inclination, at first inwards, and then slightly outwards, along the inner aspect of the back of the thigh to the popliteal space, and in its course is gradually narrowed till, at the middle of the thigh, it is about three-fourths of an inch broad, and so continues till the knee is reached. It now broadens out somewhat irregularly till it reaches the prominence of the calf, when it begins again to narrow, and forms a regular curve at first downwards and inwards, almost to inner aspect of leg, and then downwards and outwards to a point over the insertion of the tendo Achilles, reaching its narrowest at the point of greatest convexity of this curve. It then bends sharply round the heel, and passes along the outer margin of the foot till the proximal end of the metatarsus is reached, when it curves upwards on to the dorsum of the foot, and ends abruptly at the base of the little toe, where it is about one-half an inch broad.

Immediately below the knee, where the eruption broadens out, the margins are broken by little detached points, and there are two quite separate portions external to and parallel with the main band of the eruption. The superior of these two is in the lower part of the popliteal space, and is a narrow line about one and one-fourth inches long; the inferior is on the prominence of the calf, and is more irregular and patchy but its long axis corresponds with the commencing curve inwards of the main line of the eruption, and it measures three inches in length.

On the buttock, as elsewhere, the eruption consists in a considerable thickening and elevation of the skin; it is deeply furrowed in all directions; the upper portion consists of irregularly circular patches of a dark red color, and of a slightly raw appearance, whilst the other portions and the margins of these patches are covered by thickish white patches of dead epidermis. On the back of thigh the eruption is very regular, and has hardly any outlying portions: the furrows are nearly all transverse; there are fewer patches of red unprotected epidermis, the most of the eruption being covered by a thin scale of yellowish scab, which, at the margins and transverse furrows, has partially separated, and there presents a narrow irregular white line. Below the knee the scabs are somewhat thicker, in the upper portion they are quite unbroken, and the transverse furrows and markings are very distinct, but in the lower parts, here and there, large patches have been denuded, and the markings are rather indistinct. Along the outer aspect of foot the eruption is less vascular; where the red base is exposed, it is much paler, and, for the most part, is covered with thickish scales, at parts yellowish in color with white markings, but towards small toe with white, dry, and almost silvery scales like those on a patch of psoriasis. The margins of the eruption are nearly everywhere marked by a narrow bronzed line of discoloration.

The patient complains only of itchiness, especially at night when he takes his stocking off and in the morning when he rises, and of the stiffness of knee, arising from the thickened and hardened state of the epidermis. There is at present very little leeting.

17th December, 1884. Since last note the patient has been under the care of Dr. Richmond, in the Paisley Infirmary, and the eruption, in spite of varied treatment, essentially retains the characters described above. There are now, however, here and there along a large part of the margins of the eruption, small isolated patches, irregularly circular or linear in form. The small detached portions on buttock are now somewhat larger and more irregular, and have become attached, in all cases, to the main mass of the eruption. For about two inches above the heel the eruption has assumed a warty character, and immediately above the insertion of the tendo Achilles it is very much elevated, dried, and cracked. Looking at the eruption as a whole, one is struck with its regularity except, speaking roughly, in its middle third, where its outer margin is complicated with the detached portions above described.

Two days ago an attack of herpes zoster began to develop on the opposite thigh. Near the sacral end of the cresta ilii, and parallel with it, is an oblong patch of characteristic vesicles, two inches long and one broad. A similar patch is situated five inches vertically below the great trochanter. Another broad patch extends almost continuously downwards and inwards for seven inches, from a point four inches below the anterior superior spine of the ilium; and a smaller patch, arranged in a parallel line to this, is placed over the lower part of Scarpa's triangle. The patient says that the eruption on the other leg commenced in the same way, but asserts that it was not accompanied, as in the present case, with burning pain; and he is quite confident that it was not at any time scattered over the surface of the thigh.

This interesting case differs from one of herpes zoster not only in its character and lengthened duration, but also, and that very essentially, in the relation of the eruption to the nerves affected. In herpes the eruption corresponds with the cutaneous distribution of certain scattered twigs, whilst in this case it corresponds, in a rough way, to the course of the main trunks of the nerves. For, whilst both in the thigh and in the leg a considerable portion of the eruption is decidedly internal to the usual course of the nerves, which may be supposed to be affected, those portions on the buttock and behind the knee correspond, the former with the external cutaneous branches of the small sciatic, and the latter with the lower branches of the same nerve, and that portion on the outer aspect of the foot with the last part of the short saphenous nerve. It is more difficult to understand, in this way, how it could have been brought about. It would almost seem, indeed, as if the cutaneous twigs were not in themselves primarily affected, but were influenced in some way by the altered molecular condition of the nerve trunks acting directly through the subcutaneous tissue on the nerve endings in the skin. The disease was apparently confined at first to the small sciatic nerve, but afterwards attacked the short saphenous nerve, and so may be supposed to be dependent on some central changes in the ganglia of the cord. The recent occurrence of herpes zoster on the opposite leg forms an instructive sequel to the case, and no doubt throws some light upon its true nature, whilst it affords an interesting contrast to it.

The occurrence of eczema in connection with injury to nerves is, of course, not unknown, but the principal literature of nerve or skin disease does not bear evidence of the frequent occurrence of such cases as the above, and hence it may be thought worthy of record.

Cerebral Localization.

From the *Cinn. Lan. and Clinic*, February 7, 1885, we note the following abstract of Dr. Zenner's paper on this subject, read before the Cincinnati Medical Society:

There are a variety of methods of research which have assisted us to our present knowledge of the function of the brain. In the first place the study of comparative anatomy has been one of our greatest and most valuable aids. It has shown us that the seat of conscious intelligence is in the cortex of the hemispheres; this is proved by the greater development of the cortex in man as compared with the lower animals; and again, in the higher races of man the cortex is more fully and elaborately developed than in the lower. The highest power has been proved to reside in the frontal lobes.

Another study which assists in the proper understanding of the functions of the different parts of the brain, is the science of morphology. In the central convolutions of the cortex we have large cells, those of the type supposed to characterize motor cells; while in the occipital regions

we have small cells which in all probability have sensory functions.

The third science which assists in arriving at proper conclusions in regard to the functions of the several parts of the cerebrum is the study of anatomy.

We have very accurate knowledge of the various peripheral parts of the nervous system; if these parts could be followed to their origin our knowledge would be complete; but this is impossible. Yet we have assistance through other means. Prominent among these stands the study of those degenerative changes which result from disease. We have found, for instance, that when the function of a nerve is lost, the nerve itself undergoes various pathological changes. This matter was investigated especially by Turck and subsequently by Goodin. The subject was still further pursued by Flechsig, who studied the natural development of nerve tracts and systems.

But by far our most important factor in reaching a proper conclusion in cerebral localization is experimental research.

To Flourens belongs the honor of advancing science most decidedly in this direction; his work was done early in this century, in the second or third decade. He demonstrated clearly, as it was believed, two vital points: First, that the cerebral cortex is the seat of the will and of consciousness, and second, that all parts of the cortex possess the same functions—though, perhaps, with slightly varying power. This was the doctrine universally upheld for half a century. Then new investigations brought to light facts which showed that Flourens' results were not altogether accurate.

Broca, in his researches in regard to aphasia, came to the conclusion that the seat of speech had a definite situation in the brain; this he demonstrated by various experiments. Some doubt, however, was thrown upon the value of the work of Broca through the negative results obtained by Trousseau. He proved that in at least some cases of aphasia no structural changes of the brain occurred. Yet further study has shown us that Broca's views were correct as far as they went. Soon after Broca came Meinert, who very materially advanced existing knowledge of the cerebral functions, through most careful and painstaking study; his researches are of great value to us today. He held that the cortex is the seat of conscious intelligence, and that all our knowledge is derived from external impressions; all impressions pass through the crura cerebri—except those which we derive by means of the optic and olfactory nerves.

The relative development of the crusta and tegmentum indicate the degree of intelligence which belongs to the being; in man alone are the crusta and tegmentum of the same size; in lower animals the tegmentum greatly exceeds the crusta in size; in young children a similar disproportion exists, which disappears entirely when adult age is reached. The crusta is traced to the corpus striatum, and is connected with motion; the tegmentum is in relation with the thalamus opticus and corpora quadrigemina, and is connected with reflex functions; it is especially developed in infants and the lower animals.

The conclusions reached are that the thalamus opticus is the seat of reflex activity; and the other parts of the crura convey motor impulses.

Shortly after Meinert's researches, Fritsch and Hitzig published the valuable results of their experiments upon animals; they observed that by irritation of certain parts of the brain, there could always be produced definite movements; and these movements were not of the simplest character only, but in some instances were complicated, and were such as required the coördination of several muscles. Objections were raised against these views, but it was clearly shown in the first place, that movements could be affected only when the irritation was applied to a definite part of the cortex. And secondly, though the irritation were applied at other points, however near the corpus striatum, no movements followed. And in the third place, in new-born animals, in which as yet there was no connection between the cortex and the corpus striatum, irritation was not followed by the movements.

Other experiments have been made by the removal of the cortex.

Dr. Hughlings Jackson has shown that the so-called "cortical epilepsy" consists in movements caused by the irritation of a certain part of the cortex.

The seat of the sense of smell is supposed to be situated in the gyrus hippocampi; but we have as yet very little evidence of the accuracy of this supposition. The only experiment bearing on this point is one of Monck; the gyrus hippocampi is situated at the base of the brain, and is consequently inaccessible. Monck observed in a dog, in which inflammation had destroyed this part of the brain, that the sense of smell was entirely lost.

The same investigator locates the seat of hearing in probably the second or third temporal lobe; his experiments were made on the dog.

Ferrier locates the seat of this sense in the first lobe. In the human being, the so-called word "deafness," seemingly dependent upon changes in the left temporal lobe, points to this as the seat of hearing; numerous instances have been recorded of deafness following disease in this region.

With reference to the seat of vision, experiments have more positively established the situation of this sense than of almost any other; numerous cases point to its location in the occipital lobe.

With regard to the seat of motion, experiments and physiology both go to prove that for the mouth and tongue the seat is in the lower part of the central convolutions; for the arms, the middle of the central convolutions; and for the legs, the upper part of the central convolutions.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——Two reprints by Dr. J. W. Gleitsmann, of New York city, connected with the German Dispensary, have considerable interest to students of diseases of the throat and nose. One is entitled

"Laryngeal Hemorrhage," the other, "Deviations of the Nasal Septum."

——Dr. David Prince, of Jacksonville, Illinois, has added to the already long list of his valuable contributions to medical science three with the titles: "The Pulley Modification of his Limiting Tenotomy and Advancement of the Rectus Operation," "An Accidental Divulsion of a Pterygium Leading to an Improvement in the Regular Operation," and "Floating Minute Organic Matter in the Air, and its Management to Prevent Disease and to Mitigate or Control it, with a New Device for Atmospheric Purification."

——A curious anatomical case is reported in a reprint by Dr. Wm. A. Edwards, of Philadelphia, entitled, "An Anomalous Human Lung, having Four Lobes on the Right Side."

——The Proceedings of the 12th Annual Meeting of the Alumni Association of the Albany Medical College contain the Alumni Lectures of 1885, and will be found an interesting pamphlet. (Published by Burdick & Taylor, Albany, N. Y.)

——The *New York Nation* printed in its issue of June 25 a retrospect of the twenty years of its existence which were completed with that number. The *Nation* was founded in July, 1856, in recognition of the new order of things which was sure to follow the end of the war and the abolition of slavery. It has been conducted, in its two leading departments, politics and literature, by the same editors from the first number, and holds to-day, as for the past twenty years, the first rank in each. Its foreign correspondence is unrivalled. Its book reviews possess the highest authority. Each number contains a careful news summary, and the bound volumes are prized as the best obtainable chronicle of current history. 24 pp., quarto. 10 cents a number; $3 a year. 210 Broadway, New York.

BOOK NOTICES.

Transactions of the Medical Society of the State of Tennessee. 1885. 8vo., pp. 144. Nashville, 1885.

The usual proceedings, constitution, code, etc., are given in this volume, and also a number of original articles, most of them of solid value. We have been especially interested in one by Dr. Daniel F. Wright, of Clarksville, on the therapeutic effect of the ligation of great arteries. This procedure, first recommended by Dr. Daniel F. Wright, of Georgia, is intended as a remedial measure in traumatic gangrene, erysipelas, and other sequelæ of traumatic inflammation. The main artery of the limb is tied with beneficial results in cases otherwise hopeless. The article deserves the careful consideration of surgeons. Dr. J. W. Penn, of Humboldt, discusses epidemic cholera, and finds its cause in the alkilinity of the drinking water. Dr. T. K. Powell, of Danville, urges the value of veratrum viride in puerperal convulsions. This is, however, not a new suggestion, as he seems to think. When veratrum had its great run, some twenty-five years ago, it was used for this and nearly every other disease, but for some reason has "lost its grip" on modern therapeutics.

Cholera: Its Origin, History, Causation, Symptoms, Lesions, Prevention, and Treatment. By Alfred Stillé, M. D., LL. D., etc. 8vo., pp. 164. Philadelphia, Lea Bros. & Co.

This timely little work is full of the learning and good judgment which marks all that comes from the pen of the distinguished author.

Dr. Stillé does not accept the doctrines of Koch and the German school, while he fully recognizes the specific nature of cholera, and its propagation by a peculiar poison. He condemns in severe but just language the official assertion of English physicians that it can originate *de novo*, and also the repeated and dangerous doctrines of those who oppose quarantine as useless. His statements on this point particularly deserve the careful reading of every medical man who has to do with public health.

What he has to say on treatment is characterized by his usual caution and his well-known preference for a rational system which relies on general measures and distrusts specifics. Altogether the monograph is one which will have an excellent influence on the professional mind.

A Treatise on Practical Chemistry and Qualitative Inorganic Analysis. By Frank Clowes, D. Sc., etc. From the fourth English Edition. 8vo., cloth, pp. 376. Philadelphia, Lea Bros. & Co., 1885.

The author has intended this volume to be a laboratory guide and a text-book for students, and that he has succeeded in providing them with a highly acceptable work for the purpose is shown by the rapid dissemination of three editions in England and two in this country. The present one appears with a close revision, bringing it up to the latest acquisitions of the branch to which it is devoted. Its pages are freely illustrated, and both those already acquainted with its merits and those who have that acquaintance to make will not fail to be pleased with the completeness of the treatise in its present shape.

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RUNNING TO CATCH THE TRAIN.

Within a few months past the writer has noticed several papers upon this subject, two of which were in the REPORTER. As this is the time when travel on railroads is, perhaps, at its height, a few remarks upon this matter may not be amiss, as every one must know that desperate, at times frantic, efforts are daily made to catch the train. To a certain extent, as when important business must be transacted at a certain period, or when various events of public, or social character occur, some allowance must be made for injudicious haste. But, however frequently such emergency may arise, it oftener happens that no pressing necessity exists to justify efforts not only injurious, but, at times, actually fatal. Here, however, it must be confessed, that to arrive at a station just in time to see the train start is, to almost every one, provokingly annoying, and well calculated to disconcert the most impassible.

In many cases the efforts to catch the train cannot well be exceeded by the professional runner, whose reputation and pecuniary interest are at stake in a race. The danger of sudden death in these cases may not be great, and, if fatal, would probably not be made known in many instances, while a death from lightning, or hydrophobia, would be noticed by the papers generally. The danger is chiefly in regard to those who are either prone to affections of the heart, or who have, in fact, symptoms of some of the various maladies to which it is subject. In such cases a single effort of the kind alluded to may prove to be the efficient cause of a most serious aggravation of the affection, and may terminate suddenly in death, or greatly increase the trouble, that may continue for months or years. If a record of all such cases could be made, it would probably be found that the deaths, or serious injuries, occasioned by lightning or hydrophobia, so much spoken of and dreaded, would bear but a small proportion to those resulting from the daily, incessant, desperate efforts to catch the train.

In this connection, an instance of sudden death, occurring within the knowledge of the writer,

may be alluded to: A gentleman, aged forty-eight years, in company with his two nephews, went to Atlantic City on Saturday, intending to return by the early morning train on the following Monday. Some delay prevented their going to the station earlier, and, as the time of departure was near at hand, they walked rapidly. Another man ran past them, and, looking back, said "they would miss the train unless they ran." They at once began to run with great rapidity, but arrived only in time to see the train move away. The uncle, whose family the writer had attended during many years, and who had never had any sickness, sat down, but in a moment he arose, drew forth his pocket-handkerchief, wiped the sweat from his brow, saying "he would not like to run that way again," and instantly fell down, and in less than a minute life was extinct.

It should, however, here be stated, that although remarkably healthy, he was excessively fat, and, unfortunately for him in this case, was exceptionally active—capable of running very rapidly.

In view of the fact that instances of injury of a serious character must be of frequent occurrence, and at times of fatal import, it would seem to be of importance to remind the public, either by medical or other publications, of the danger to be incurred by these rash efforts to catch the train.

Notes and Comments.

Poisoning from Chloroform.

Dr. Llewellyn Eliot presents a case of poisoning from chloroform taken internally, and adds a table of the reported cases (*N. Y. Med. Record*, July 11, 1885).

The table shows that death resulted in 16 cases; of this number but 6 died in twenty-four hours; the other 10 surviving various periods until the eighth day. The mortality was 26.78 per cent.

The mortality of chloroform is 1 to 5,860; that of ether, 1 to 16,542; that of nitrous oxide, 1 to 100,000; we see that chloroform is not an agent to be used indiscriminately nor in the absence of proper antidotes. Deaths are rather due to paralysis of the heart and respiratory organs. When administered internally, the symptoms produced are of the same character, only more intensified and more lasting than those following inhalation.

It is impossible to state with exactness the amount of chloroform that can be administered by inhalation. In a case of puerperal eclampsia that E. brought to a successful termination, one and a half pounds were administered in thirty-six hours. The same holds good in regard to doses by the mouth; recorded cases show quantities varying from ʒss to ʒvj. The symptoms of the toxic action of a fatal dose, in addition to general muscular relaxation, perfect anæsthesia, and insensibility, are cyanosis, convulsions, jaundice, sudden paleness of face and lips, stoppage of the pulse and respiration, involuntary passage of urine and fæces.

In treating cases of internal administration, the first indication is evacuation of the stomach by emetics or stomach-pump. Fresh air, sinapisms, flagellations, cold douche, strong coffee, with ammonia, strychnia, digitalin, or morphia sulphate hypodermically administered, are the measures to be adopted; artificial respiration, lowering the head, drawing the tongue forward, lifting the chin, hot applications and inhalations of nitrite of amyl should be employed.

Electricity is advocated upon theoretical grounds. Dr. Reuss recommends subcutaneous injections of apomorphia. Spence prefers ammonia to alcohol as a stimulant, on account of alcohol increasing the already increased amount of carbon in the blood, while ammonia acts merely as a powerful stimulant. The post-mortem appearances are not pathognomonic. Fifty-seven cases are recorded in the table, extending from 1851 to date.

Double Infantile Spastic Hemiplegia.

In the January number of *The American Journal of the Medical Sciences*, Dr. S. J. McNutt reports a case of double infantile spastic hemiplegia, with carefully recorded notes of the post-mortem appearances, illustrated with seven cuts exhibiting the lesions found. This is believed to be the third, or, at the most, the fourth case of its kind upon record. Yet these cases do not appear to be so very uncommon, since four others presenting similar symptoms are known to be now in New York city. As a distinct condition, even simple infantile spastic hemiplegia has but lately received attention in text-books. For this reason, and on account of the difficulty of obtaining any comprehensive information on the subject, the collection of facts and theories presented in Dr.

McNutt's paper is of great value, and must lead to a further study of this interesting condition. Dr. McNutt has collected and tabulated 34 cases in which autopsies have been made, and each of them presented atrophy of the cerebral cortex, near the fissure of Rolando.

The subjects of infantile spastic hemiplegia may live to old age. The inception of the disease, however, always dates back to early childhood, or to intra-uterine life. At whatever age seen, its victims are characterized by more or less complete hemiplegic motor inability, atrophy, and contractures, with or without aphasia, monosyllable utterance, dysphagia, dyspnœa, and idiocy, the latter being especially characteristic of the double affection.

The etiology of infantile spastic hemiplegia has been defined as primitive defect, arrest, encephalitis, and hemorrhage.

Clinically, the cases may be divided into three classes, those in which the inception of the condition precedes birth, those in which it occurs after birth, and those of which parturition is the cause. The paper concludes with a careful study of the differential diagnosis and treatment.

Treatment of Neuralgia by Neuber's Method.

Dr. Schapiro recently read a paper, at the Medical Society of St. Petersburg, upon the results of researches on treatment of neuralgia by Neuber's method of hypodermic injections of a solution of osmic acid. His observations include eight cases of trigeminal neuralgia (three males and five females). The age of the patients varied from thirty-eight to sixty. In every case the disease was of a very severe type and of long-standing. The result of the treatment was complete cure in five cases (three females and two males), great alleviation of the pain in two cases, and no success at all in one case (female). The number of injections made in each case was from one to twelve (twenty in one case), five to ten drops being injected every time. The duration of the treatment was from one to sixty days. Dr. Schapiro adopts a modification of Neuber's 1 per cent. aqueous osmic solution on account of the osmic acid soon undergoing decomposition in a watery solution. After a whole series of combinations, he concluded that an addition of glycerine to the watery solution prevents for a long time osmic acid from undergoing any change. In not one of the cases treated by him was an injection followed by any ill effect. The patients are now under the author's observation (two to six months after the commencement of the treatment).

Fracture of Humerus by Contro-Coup.

Dr. Geo. E. Monette, of New Orleans, thus writes in the *Texas Courier-Record of Medicine*, June, 1885:

Fred. C., of New York, an exhibitor and visitor to our great Exposition, met with the above accident during December last. While riding in our street cars (*en route* to the Exposition), sitting carelessly in the car, with his elbow as far out the window as he could protrude it, the result was that his forearm met an obstruction in a projecting seat of our ordinary wood-carts used in the city, striking the ulna, about four inches from the olecranon, with such force as to fracture the humerus at the deltoid insertion. The fracture, as also the contusion, did well, until the fourth week, fortunately after union of the fracture, when the most violent periostitis developed at the seat of contusion of ulna. There was an evident exfoliation of the bone, which seemed to have undergone suppurative degeneration, and resumed its normal condition with very little irregularity of its surface. There were a number of sinuses communicating with the contusion and a slight abrasion, which terminated in an ulcerative condition. These were broken up by lotions of tinct. iodine co. and carbolic acid (℥j. āā ad. Oj.). Recovery was good and complete at the expiration of two months.

Cocaine in "Snuffles."

Dr. Zemshchenko has treated seventeen infants from two weeks to eleven months old with coryza by means of cocaine dropped into the nose. Two drops of a two per cent. solution were thus applied from four to six times a day with remarkably good results. In only one case was any increase of secretion observed. He has also made use of a four per cent. solution for older children. As, however, there is some risk of the solution being swallowed and producing vomiting, he finds it best to apply the cocaine by means of an ointment. In one case of suspected "snuffles" in a child three weeks old whose mother was syphilitic, the writer painted the nares with a two per cent. solution with a satisfactory result.

Acute Albuminuria of Possibly Traumatic Origin.

Dr. W. F. Morgan (*New York Med. Record*, July 11, 1885,) writes that he was recently in attendance upon a boy, aged seven, and had considerable difficulty in making a diagnosis until an analysis of the urine revealed the presence of fifty per cent. of albumen by volume.

This condition had not been preceded by any of the specific fevers or other of the generally-recognized causes of acute Bright's disease in children. "Possibly it may have been due to a fall upon the back which the patient had had about a month before. The fall had been succeeded by a gradual deterioration in health, with great disturbance of the heart's action, convulsions and cyanosis. During the convulsive attacks the heart-beats were irregular and about forty per minute. An unfavorable prognosis had been given, but after a month convalescence set in. Diplopia and incoördination of the muscles of locomotion persisted for several weeks, but the patient is now in perfect health.

CORRESPONDENCE.

Hysteria.

EDS. MED. AND SURG. REPORTER:—

In the July 11th No. of the MED. & SURG. REPORTER, 1885, it is related of Prof. W. H. Thompson, of New York, that in one of his recent excellent lectures he related his experience in connection with a case as follows: "The patient was a female of 20 years. After a careful examination a diagnosis of hysteria was made and appropriate treatment prescribed, with no apparent improvement of symptoms. The case was becoming monotonous to physician and friends. A noted metropolitan neurologist was called in consultation, and acquiesced in the diagnosis which had been made, also saying with emphasis, that any doctor with average knowledge would know that it was a case of hysteria. Ere the consultation closed, they were summoned to the bedside of their patient, only to see her expire."

This reminds me of a case that occurred in my practice about a year ago. I was called in great haste a few squares from my office to see a young lady, 17 years of age, of a general physical development much beyond her years, who was, apparently, in that peculiar swoon or quasi-insensible condition we often see in cases of hysteria, not unlike that known as "trance." My opinion was expressed accordingly, which opinion was sustained by the priest who was present. I assured the friends she would recover in a short time, and went home. I no sooner reached home, however, until I was recalled and, upon my arrival, found my patient dead. The *post mortem* revealed a very greatly hypertrophied heart, which, however, might have been diagnosed *ante-mortem*, if a thorough examination had been made.

H. V. SWERINGEN, M. D.

Fort Wayne, Ind.

Pelvic Cellulitis in a Child Three Years Old. Vesical Tenesmus the Leading Symptom.

EDS. MED. AND SURG. REPORTER:—

I submit the following case, its several peculiarities entitling it to notice:

Angerina L——, an Italian girl, aged two years and nine months, a stout, healthy child, well-developed and active, was observed to urinate with great difficulty. Her mother attached but little importance to the trouble, which had existed about two weeks, until the night of September 20, when I was called. I found the bladder very much distended, no water having been passed in eighteen hours.

Failing to relieve the retention by the ordinary expedients, I drew off the water without difficulty, using a soft catheter.

It was necessary to repeat the operation again on the following morning.

After that, I saw nothing more of the case until December, when I was again called under similar circumstances, and at once used the catheter to relieve the retention. This time the patient was sick for several days with fever, constipation, and great pain on micturition. After her recovery, I again lost sight of my patient until June last, nine months from the date of her first trouble, when she was presented at my office much changed in appearance. She was emaciated, peevish, and fretful, her principal trouble now being intense pain upon evacuating either bowels or bladder.

Upon examination, slight tenderness was discovered in the right iliac region. The abdominal walls were rigid.

With Dr. Richardson in consultation, she was anæsthetized and the bladder searched carefully for stone or tumor.

While undergoing this examination, we detected a tumor the size of an egg, hard and firm, just above and to the left of the pubes. This body proved to be the spasmodically-contracting bladder. Examination per rectum revealed a firm, elastic swelling, encroaching upon the rectum from the right fossa. A slight sense of fluctuation was elicited.

The examination was now postponed until the following day, at which time diverse opinions were held by the gentlemen in consultation. Amid so much doubt, we prudently determined to wait a few days and again examine the patient.

On the second day after this examination I visited the child and was shown a supposed stool, which was really nothing but pus and blood.

A large opening was found in the rectum about one inch above the verge of the anus, through which an abundance of pus was being discharged.

A diagnosis was now clear. The obscure trouble, with vesical spasm the only prominent symptom, proved to be pelvic abscess, which was evacuating itself through the rectum.

The discharge continued but a short time. Nutritious diet, tonics, and stimulants, wrought a great change in the child. To-day she is free from trouble and pain of any kind; in fact, appears perfectly well.

Matthews Duncan holds pelvic cellulitis to be always a secondary affection. "That it is produced by inflammation of the uterus, or of the tubes, or of the ovaries, or by noxious discharges through or from the tubes and the ovaries, or by mechanical injury. Without one of these causes this inflammation and abscess is not observed." (Emmet.)

Thus from these distinct, but not always clearly defined sources, this high authority traces cellulitis; and it does appear that he has embraced all the factors in its etiology.

To what then are we to attribute those cases fo cellulitis occurring after the menopause, or before puberty, in which we can eliminate almost positively the existence of such a cause or complication?

In the case detailed, there could be but one of the above causes possible in its production, viz., mechanical injury. There is no history of a fall or an accident of any kind. A soft rubber instrument and utmost care were used in catheterizing, so I can honestly eliminate mechanical injury.

All tissues of the body under favorable conditions are subject to inflammations. I am unacquainted with the conditions furnishing immunity to the cellular tissue of the pelvis. All authorities agree in that simple uncomplicated pelvic cellulitis is a rare affection, many holding that it is only the result of uterine or ovarian disease, consequently only met with during menstrual life.

The best evidence one can adduce opposing this theory is reference to those cases of pelvic abscess found in childhood, two of which cases Emmet records.

The symptoms of long-standing parametritis in the adult are vague. In this child retention of urine seemed to be the only trouble. There was no fever indicative of the exudation until the night preceding the spontaneous opening of the abscess, showing that pelvic cellulitis may advance even to suppuration without causing any active disturbance.

Another point of interest in this case lies in the fact that after the evacuation of the pus through the unusually large opening the discharge ceased in a week's time.

The recovery was rapid, differing from the usual course of chronic cases of this disease, which do not terminate with the formation of abscess.

RICHARD DOUGLAS, M. D.

Nashville, Tenn.

Malignant Bilious Fever.

EDS. MED. AND SURG. REPORTER:—

In the last number (July 18) of your journal, you comment favorably upon a paper by Dr. R. Harvey Reed, of Mansfield, Ohio, on "Climatic Changes in Ohio," etc., an extract from which you publish.

Dr. Reed says: "These changes have been followed with a decrease in all forms of malarial diseases;" and you add, speaking of Illinois, where you collected observations twenty years ago: "The forms of malignant 'bilious fever' with which the old physicians had to combat are now scarcely met with. * * * The climate has been modified much, as in Ohio, the cause apparently being the more rapid surface drainage."

If Dr. Reed and you mean to be understood as contending that there has been "an alteration of type" in malarial diseases, as the result of climatic change, I take issue with you.

That "the forms of malignant 'bilious fever'" are now rarely met with is a fact which, I think, cannot be successfully denied; but that change or modification of climate has had a controlling agency in effecting the decrease, I seriously question—the apparent difference in the character of the diseases being due to difference in medical treatment. When, as was universally the case, about forty years ago—and is yet to some extent—bile was regarded as an excrementitious product, and "bilious fever" was believed to be caused by failure of the liver to secrete it in sufficient quantity or normal quality, and "cholagogues" and "alteratives" were freely used to "touch up" the delinquent organ, fevers ran an indefinite course, and, by the help of doctors, either killed the patient, or left him, at the end of from two to six weeks, a physical wreck.

Now, the physician is culpable who permits any case of malarial fever—except the pernicious or congestive type, and that only because the patient, from neglect, is usually almost moribund before the physician is called—to last over seventy-two hours at the longest.

To no one, perhaps, was the change of treatment presented in a more impressive manner than to myself. In the fall of '46, whilst a student in Georgia, my preceptor required me to watch all night the effect of one-grain doses of quinine upon an unusually vigorous man. The next summer I saw the late Dr. Jno. G. Gamble, of Tallahassee, Fla., administer ten-grain doses of quinine to a child of seven years. The child had been weeks under the care of two old physicians who were waiting for the fever to subside before giving quinine; Dr. Gamble gave the remedy during the fever, and arrested the disease in a few hours.

Last fall I saw a case of old-fashioned "bilious fever" in the person of a homœopathic physician who had been treated ten days by one of his professional ilk. Within twenty-four hours, under proper treatment, the doctor was convalescent. That case, under *laissez faire* treatment, showed that "bilious fever" now is just what it used to be. The result would have been the same if the old "heroic" treatment with drastic drugs, based upon an incorrect physiology and a false pathology, had been practiced. Give malarial fevers the chance they had in old times, and they will, in these days, show their former malignity.

GEO. TROUP MAXWELL, M. D.

Ocala, Fla.

NEWS AND MISCELLANY.

Proceedings of the Kentucky State Medical Association.

REPORTED BY ALLEN KELCH, M. D.

(*Continued from page* 111.)

Dr. J. A. Larrabee, Committee on Diseases of Children, after the usual introduction of papers spoke of

INFANT FEEDING AND CHOLERA INFANTUM

as follows:

The question of artificial feeding in infancy is one which should engage one's attention. The mortality among infants attempted to be reared independent of the mother is more appalling, and that despite every effort on the part of friends and nurses. In our institutions 70 to 80, and one report of Infants' Foundling Hospital, 90 per cent. of those taken from mothers early have been lost. In an institution of this kind in Louisville, where

mothers are taken with their babies and a gradual supplant of the breast is substituted, the mortality has not been over 5 per cent. from all causes, and would be even less but for the waifs that are left in excess of our ability to supply wet-nurses. Certainly the lesson here is plain. Mother's milk, as supplied from the mammary gland to the nursing infant, is the only food, and further, no perfect substitute has been, or ever will be, invented. A few years ago it would have been difficult to find food for infants for sale at any place. Now such preparations are beyond numbering, and are offered for sale at any well-regulated grocery, and the sale of these preparations is, I am told, an increasing feature of grocery as well as drug business. We are therefore constrained to ask wherefore the cause? The result is already shown, but wherefore this increasing demand? Can it be that our women are losing the beauty and loveliness of their maternity? Can it be that an assumed inability is made an excuse for a non-performance of duties which compromise the health of both the mother and her offspring? The spectacle of Russian prisoners leaving St. Petersburg every few days, banished to the cheerless wilds of a cruel Siberia, excites the sympathy of the civilized world. Not more surely and certainly do they commence the slow death than does the infant banished from the warm, genial breast of its mother, and condemned to travel the via dolorosa with a nursing bottle and the latest novelty of infant food for companions.

Good and sufficient reasons often exist for artificial feeding. Then the best substitute for mother's milk is that from the cow. The excess of casein and its difficult coagulability constitute its chief obstacle. Cows' milk coagulates in immense curds, while mother's milk is seen in light flocculi. This is really the only difficulty to overcome. A mechanical admixture of some granulated substance often answers. Many do well on condensed milk, which is simply milk from large dairies reduced to one-fifth its volume in vacuo, and sweetened, or claimed to be, with sugar of milk and not cane sugar. In large cities, where the milk-supply is poor and inadequate, it is a great blessing, and it may be fed without change (unavoidable in hot weather with cow's milk) into lactic acid. The addition of barley water to condensed milk, in quantity to make the required bulk for a feeding, meets several important indications. The introduction of digestive ferments has done much for these unfortunate infants, and a near approach to mother's milk has, by their addition, been already made.

There is one remaining consideration in the care and feeding of babies artificially, and, in the judgment of your committee, it has largely to do with the bad showing of infants' hospitals, as well as domestic practice. It is the fact that such infants are continually overfed. The estimate of the requisite quantity of healthy milk for a nursing infant is quoted often much higher than is true. The average amount of milk drawn from the mammæ, if a healthy mother, by a healthy infant at birth, is not over four tablespoonfuls, or an ounce and a half; this is, or should be, taken at first every two hours; later on, two ounces and three ounces may be supplied at intervals of three hours—and once at night—a part of this quantity being often regurgitated as superfluous. Compare this with the nursery bottle of artificial food as given every time the child cries, and we have sufficient cause for discomfort and disease. The infant actually grows poor with the labor of attempted digestion.

Cholera Infantum.—This disease is one that calls still more loudly for a correct etiology from the profession. The want is not likely to be filled by papers written upon summer diarrhœas, etc., so common in the journals of the day. Cholera infantum, if it means anything at all, means cholera in the infant, and is as totally distinct from diarrhœa or summer complaint. It is to be regretted that so much has been written upon the treatment of this disease, and so little learned as to its cause. Your committee is of the opinion that the investigation of the intestinal tract, and even the remarkable and recent developments of the microscope, will prove less advantageous in this field of etiology than the same careful investigation of atmospheric and telluric influences. The analogy between choleraic conditions and intermittent fever of pernicious type, and both these with the results of toxic doses of antimony salts, should invite attention to the influence of the supposed poison upon the nerve-centre, by which the sympathetic is paralyzed and the whole process of osmosis undergoes an immediate change. The disease is a neurosis, and is of the order of shock. The introduction of the term *thermal* in connection with some of the diarrhœas so alarmingly fatal in summer months, is correct, and carries the right meaning with it. It seems to be a modified form of sunstroke, in which the external temperature is greatly elevated, and attended by profuse watery discharges from the bowels. The treatment indicated by this view has proven its correctness, viz., the use of cool or cold-water sponging until the temperature is reduced and the diarrhœa controlled. A choleraic diarrhœa is also an accepted term, and applies to instances of putrefactive changes in the ingesta, when the term fermentation would mean more. This with inflammatory diarrhœa or dysentery always due to atmospheric influence, and rarely to ingesta, make up the combination of "summer" complaints so common at this season.

The treatment of cholera infantum must be prompt and well directed to be effectual, and when so applied your committee has found it to be attended by results far more favorable than at first anticipated.

We should no more place medicine in the infant's mouth to be introduced into the stomach, than we should think of attempting to stem the current of Niagara at Goat Island in a row-boat.

Hypodermic medication of the infant, with properly graded doses of morphia and atropia in cholera infantum, has, in the hands of your committee, been attended by such success as to warrant the recommendation. Many cases so treated were in the algid stages of cholera exhaustion. A single injection was sufficient to cause a halt in the osmosis, and a reflux of blood to the surface, and in most of the cases a single injection constituted the only treatment. For the choleraic or fermentative diarrhœa, with putrid odor of the discharges, the salicylate of lime in small and frequent doses has, in my hands, surpassed all

other treatment. This very common and easily recognized form of "summer complaint" yields readily to salicylates, either soda or chalk.

The treatment found most successful in inflammatory diarrhœas (infantile dysentery), has been to commence with saline evacuants, e. g., Epsom or Crab Orchard salts or concentrated water in small doses given in comp. infusion of rosemary with a drop of laudanum.

Dr. Larrabee continued by a reference to the influence which the various cachexias exert upon the diseases of infancy in this connection, remarking that many a child whose disease has been correctly treated according to nomenclature, has ultimately been sacrificed because the underlying cachexia exerted its influence undetected.

Passing on to the fevers of childhood, they are characterized, said he, in many cases, by the rapidity with which they make their appearance, the unusual height which they reach, and their equally sudden decline.

A dose of castor oil is frequently all the medication required in many such cases.

The throat, said he, should always be examined as a routine matter in the fevers of childhood; for unless this is done sometimes days will elapse before the local mischief may be accidentally discovered, perhaps by some other than the attending physician, when the creamy deposit often noticed upon the tonsils suggests diphtheria, alarms the parents, and mortifies the doctor needlessly.

Passing on to croup and diphtheria, he regarded the diseases essentially and radically distinct. Diphtheritic-croup, typho-malarial fever, etc., said he, should be tied up in a bundle and consigned to the dark waters of oblivion. Croup, said he, is a local disease characterized by the production of a false membrane, which when removed is reproduced, and which tends by its obstruction to cause death by the obstruction which it produces to the function of respiration, while diphtheria is a disease producing its fatal result by exhaustion, offering no hope for relief except by constant alcoholic stimulation. He maintained that tracheotomy should be performed in croup early as a rule, and always whenever the respiration begins to grow embarrassed. In this connection he referred to a case upon which he operated the second day, the operation ending in apparent death, from which the child rallied and progressed favorably until the fourteenth day, when the tenacious discharges threatened to close the scene by obstructing the respiration. After the usual agents had been tried to overcome this trouble without availing, Labarraque's solution was adopted and fulfilled the indications; in seven days more the tube was removed, and the child is now well.

Whooping-cough, measles, and scarlet fever were simply referred to in the report.

The discussion of the paper, participated in by Drs. Scott, Hanwood, Thompson, and Bailey, evinced the usual variation of opinion and individual experience, with reference to the hypodermic medication of children with morphia.

Dr. Orpheus Everts, of College Hill, Ohio, by invitation, read a paper

ON OVERWORK AS RELATED TO INSANITY.

His apology for reading on this subject lay in the rapidly increasing public and professional interest in it. The etiology of insanity in general was then considered. But few persons, he said, are now brought to hospitals for treatment, who, if not too wild or too stupid to take notice of their surroundings, are not constantly assured by their friends that they have overworked, and must rest.

The subject was then systematized thus:

(*a*) What is work?

(*b*) What are the physiological relations of work to the organs and functions of the body?

(*c*) What are the pathological relations of work to living mechanisms and their manifestations?

Work limited to the performance of appropriate functions within the range of structural integrity is physiological in its relations to structure, but whenever not so limited, alternated by rest and compensated for expenditure of force by renewals, its relations to structure become pathological.

An exhausted brain, if exhausted by performance of its own functions, voluntarily or in response to its own necessities, will cease to perceive, remember, or think, and become unconscious during a period of rest and recuperation, if not whipped or spurred by undue influences.

After reporting several cases illustrative of the relation of insanity to overwork, the following conclusion was arrived at: While overwork, in its general sense, is a prominent factor in the problem of causation of diseases, some of which are manifested by mental disorder, overwork in the performance of mental functions is not a frequent or sole cause of such diseases.

FRIDAY MORNING.

Dr. J. G. Cecil read a paper on mastitis, in which he took the ground that all ordinary cases of abscess of the breast resulted from fissures and erosions of the nipple, and the methods usually adopted to relieve distention of the gland from the lacteal secretion. That nursing a breast by a child or other animal, or by using a breast-pump, when a fissure or erosion is present, will not only fail to give satisfaction as far as pertains to emptying the gland, but also prevents healing by the wound being continually torn open at each application. That accumulated milk is entirely innocuous to the gland and will not of itself cause abscess, and hence all attempts to remove the milk or reduce distension by rubbing, massage, etc., can only produce damage and cause the very trouble it is designed to prevent. Among the most important results of abscess is the probable relation of development of carcinoma in breasts where antecedent mastitis has existed. From the standpoint of the local origin of cancer, it is fair to presume that carcinoma is more likely to develop in breasts from scars and lumps left by inflammatory troubles than in breasts never the subject of these attacks. Deductions from figures given by Prof. S. W. Gross makes it appear that 8.21 per cent. of all child-bearing women have carcinoma of the mammary gland, and that 42.25 per cent. of cases of mastitis develop cancer.

Treatment recommended is that adopted by Dr. Philander Harris in *American Jour. Obstetrics* for January and February, 1885, namely, that of absolute non-interference with the lacteal secretion by any local application or by any methods of removing or checking the flow of milk, but the application of absorbent cotton to the glands, and

the application of a roller-bandage around the chest and over the shoulders. In multiple abscess the treatment of Billroth is advised—that of anæsthetizing patient, making a free opening with bistoury, then with finger break all the cavities into one and treat that antiseptically.

Dr. J. M. Ray, of Louisville, read a paper on

WOUNDS OF THE ANTERIOR SEGMENT OF THE EYEBALL.

He referred to the observation of DeMour, who in 1818 first noted that injuries of the anterior part of one eye are liable to excite inflammation in its fellow. Not till 1854, however, when Pritchard announced that enucleation of the wounded eye would mitigate or cure the sympathetic trouble if it had not advanced too far, did the suggestion become of any practical value.

Now the question most pertinent is, How much injury can the implicated eye sustain and be still retained with a minimum of risk to its uninjured fellow? It is likewise a most difficult question to decide. Where there is an extensive wound involving the so-called dangerous regions, and no perception of light remains, any surgeon would, on general principles, condemn the eye. There is danger, however, that some whose conservatism has given them bitter experiences of sympathetic ophthalmia, may advise the extirpation of an eye that by judicious care would become a useful organ.

Bowman has said that by careful nursing many eyes that are severely wounded can be saved from exciting sympathetic inflammation, even when there appears to be but little chance of obtaining a plump eyeball. The chief of the clinic of one of the most prominent British ophthalmogists, remarked, in answer to a query by the essayist, that "after a study of the subject for many years, and a careful examination of all the material afforded by the Moorefields Hospital, he had satisfied himself that many eyes were sacrificed which would by careful attention have become useful."

Two extreme cases were then related in justification of this conservative plan. In these, when any sign of impending inflammatory re-action appeared, 15 grains of calomel made a marked change, similarly to what is observed when destructive inflammation appears after cataract extraction. Two cases of wound of the ciliary region followed, in which, while the perception of the organ was not lost, its function was practically destroyed. These, under the use of atropia, bandage, low diet and rest, recovered. $V=\frac{2}{3}\frac{0}{0}$ obtained in one case where the lens had undergone absorption, as the result of the injury by $+\frac{1}{3}$.

In conclusion, the writer said: "The results obtained in the cases here reported are by no means observed in all injuries of the eyeball. Often an eye will react safely from an injury that threatened total destruction, and again an eye slightly injured will resent it very quickly. Especially in childhood is this often observed." He would therefore counsel a wise conservatism, never losing sight of the fact that if much inflammatory reaction takes place, if the ciliary region is involved in a firm cicatrix, the iris and ciliary body in a state of chronic excitement, with an abiding tenderness in the region, the eye should be carefully watched, and the patient warned of the dangers which menace the fellow eye from sympathy. The writer agreed with Swanzy, who says: "Never remove an injured eye unless it contains a foreign body which cannot be removed, if it has fair chance for sight, and there is no sign of inflammation; for the inflammation may not come on, and thus the eye be saved."

Dr. J. A. Stucky, of Lexington, reported on

ABDOMINAL INJURIES.

Case 1. Malinda J., colored, received a cut in abdomen, knife entering an inch to the left and below the umbilicus, penetrating the cavity. Wound three inches long. About two feet of intestines protruded; they were not injured. Patient placed under chloroform, intestines washed with listerine and water (1 to 12 parts) and gut replaced. Patient made rapid recovery, with no unfavorable symptoms. Treatment consisted of hypodermic of morphia $\frac{1}{4}$ gr., atropia $\frac{1}{150}$, to prevent the action of bowels, and prevent patient moving about in bed. Cloths wet with listerine and water were applied every four hours. Liquid food was given for ten days. Patient sat up on fifteenth day.

Case 2. Jno. Cleary, Irish, æt. 33, engaged in bar-room fight; received a cut in abdomen; on right side, extending from anterior superior spinous process to just over symphysis pubis, passing through abdominal parietes, peritoneum, and almost severing the small intestines in three places. Reached patient a few minutes after receiving the injury; found him lying on his back on floor of bar-room; the intestines protruded to the extent of six or eight feet, and were lying on the floor in a mass of blood, sawdust which covered the floor, and fecal matter. Had lost considerable blood; hemorrhage had ceased when I reached him. The wound was dressed as follows: Intestines were placed in basin of tepid carbolized water, and thoroughly washed; the abdominal cavity was sponged and cleansed as best we could under the circumstances, there having escaped into the cavity a quantity of blood and fecal matter.

The wounds in the intestines were closed with an uninterrupted suture of carbolized cat-gut. The intestines were put back irrespective of position, and external wound closed with an uninterrupted silk suture; adhesive (rubber) strip and a heavy abdominal bandage completed the dressing. Patient was removed to St. Joseph's Hospital.

Shock was great. Pulse quick and feeble. Stimulants were given per hypodermic with morphine and atropine, until patient rallied, which was about 12 hours after receiving injury.

Bowels restrained with opiates and same treatment followed as in Case 1.

Patient made a rapid recovery, nothing complicating the repairing of the wound. No peritonitis and little or no sloughing.

Bowels acted on 11th day. Patient sat up on 17th day, and was discharged four weeks after receiving the injury.

Case 3. Wm. Reed, Irish, æt. 28, brakesman. In making coupling of the engine to freight train, attempted to raise the draw-bar, so that the coupling-link could enter; while in the act, the engine pushed back, the link striking him, and entering

at a point about 2½ inches above the crest of the ileum, one inch to the left of the spinal column, and just below the last rib, passing directly through the abdominal cavity, the point coming out about 3½ inches above and one inch anterior to the ant. super. spine of the ileum. The muscles of the back and abdomen, as well as the peritoneum, were greatly lacerated. A close examination could detect no injury to intestines, or any of abdominal viscera.

Patient walked a distance of three car lengths, by holding one hand over injury in back, and the other hand over the abdominal injury; was placed in caboose and brought to Lexington, Ky., a distance of twenty-seven miles. His wounds were dressed at St. Joseph's Hospital, and examination showed that eight inches of gut protruded from wound in abdominal wall. This was replaced. The external wounds were closed by deep sutures of heavy silk. Recovery was complicated by circumscribed peritonitis—sloughing of both wounds. Treatment consisted of hypodermics of morph. and atrop., to relieve pain and control muscular action. Poultices to favor separation of slough, and liquid diet—milk and beef tea. After separation of slough, the wounds were filled with iodoform, edges brought together by long strip of rubber adhesive plaster, and covered with carbolized oakum, and abdominal bandage. Enema of soap-suds given on 9th day, when bowels acted freely.

Seven weeks after injury, patient exhibited to Kentucky State Medical Society. Wound healed rapidly by granulation. Patient sat up on 18th day.

Dr. W. O. Roberts, of Louisville, read a paper on

DIRECT HERNIOTOMY,

reporting several cases.

In case 1 the hernia had existed from boyhood, the patient being now thirty-five years of age. Until the last year a truss had been sufficient for relief. Since, a suspensory bandage had been worn, and at the time of operation, the tumor, gradually enlarging, had reached the size of a goose-egg. In this case, before opening the sac, the enteric or reducible portion of the tumor was returned. The adherent and irreducible portion was found to be composed entirely of omentum, and was fully as large as a man's hand, much thickened, and attached to the sac by strong adhesions. A ligature of whale tendon was thrown around it at a point just within the external ring, and the part external to the ligature cut away. The sac was now dissected up, and a ligature applied external to that on the omentum. The body of the sac was then removed, and the *pillows* of the external ring secured in apposition by a continued suture of whale tendon. The wound was closed by deep and superficial sutures, and a compress and bandage applied. The only antiseptic used was a weak solution of carbolic acid. But slight shock followed the operation, and recovery occurred without an untoward symptom.

In the second, a case of strangulated hernia, the patient persistently objected to an operation until fæcal vomiting had occurred for eight hours, when his pulse was 108, temperature 100° F., expression anxious. On opening the sac, a dark-reddish fluid escaped.

The hernia was an entero-epiplocele. The intestinal portion was very deeply congested, while the omental portion was gangrenous. I ligated the latter at a healthy point, and cut away the dead portion. The intestine was now thoroughly cleansed, and reduced without difficulty. The sac was then dissected up and divided at its neck, a drainage-tube introduced well up into the canal, and the external ring closed around it. The patient rallied from the operation, had two actions from his bowels in the afternoon. But on the following day general peritonitis set in, which ended fatally on the third day. No post-mortem could be obtained.

In another, the case of a man 62 years of age, where the hernia had existed for twenty years, unmistakable signs of obstruction manifested themselves, and on operating the sac was found very greatly thickened, and its upper and lower part separated by a small cavity, which contained about a dram of pus. The hernial tumor tightly filled the inguinal canal. It did not extend beyond the external ring. The index finger, inserted into the ring and carried gently along the canal, soon effected reduction. I soon dissected up the sac, and threw a silk ligature around it, just within the external ring, and cut away that portion which lay in front; I then twisted the neck upon itself several times, closed the ring with the continued suture, and the wound with deep and superficial sutures, and over all applied a compress and bandage. Carbolized silk was used for ligatures and sutures, and a one-in-two-thousand solution of corrosive sublimate for hands, instrument, etc. Outside of a rather sharp inflammation of the scrotum, recovery was fairly quick and wholly uninterrupted. Six months have now elapsed since the operation was done, and though the patient has worn no truss the tumor shows no disposition to return.

In a case of a woman 65 years of age, in whom the hernia had existed for 32 years, strangulation occurring, operative procedures were instituted, when, said the speaker, "I found the sac deeply congested. On being opened, a small quantity of straw-colored fluid escaped. The contents of the sac consisted of two knuckles of intestines, the surfaces of which were covered with lymph. After dividing the stricture, the protruded bowel was thoroughly cleansed and replaced. As the sac showed such slight signs of vitality it was not further disturbed. The upper two-thirds of the wound in the superficial tissues were brought together, a drainage-tube introduced through the lower angle up to the femoral ring, and a compress and bandage applied. The antiseptic used was bichloride of mercury 1 to 2000. This dressing remained undisturbed until the fourth day, when upon its removal the upper two-thirds of the wound was found well united. Considerable discharges had passed through and around the tube, and the sloughy sac protruded through the opening. On the seventh day it came away. There was no peritonitis, and the patient's temperature at no time reached 100° F. A voluntary action of the bowels occurred on the fifth day. The entire wound healed in four weeks, when the patient left the bed. She

neglected to wear a truss, and in two weeks after the hernia recurred. The patient was able to return it without difficulty, however, and she now keeps it in place without difficulty by a truss."

The speaker then entered upon a comparison of various operations, the result of which had led him to prefer that practiced by Mr. Hardie.

Dr. P. S. Connor, of Cincinnati, read by invitation a paper on

FRACTURE OF THE NECK OF THE FEMUR.

After referring to the acrimonious and bitter discussions that have occurred from time to time in medical literature, and after calling attention to the anatomical conditions influencing the repair of fractures in this locality, the speaker in reference to treatment said: "The weight and extension dressing, which answers so well in fractures of the shaft, when applied to those of the neck proves defective in so far as it permits of considerable movement at the seat of injury, does not control the outward displacement of the upper end of the lower fragment, and fails in the very essential requisite of any suitable fracture dressing, that it shall altogether prevent or reduce to a minimum movement of the joints immediately above and below the line of break. And, further, it does not and can not keep the fragments in fixed relation to each other when movements of the trunk or limb are made; so that if changes of position of the body are effected, as they must and will be, more or less disturbance of the fragments must result.

"The immovable dressing, to fully satisfy the requirements of the case, must embrace not only the thigh, but the pelvis, or at least the half of it, in order that the hip-joint may be fixed, and the action of the hip-muscles restrained as far as possible. And just here lies the difficulty in the application of such dressings, and the imperfection of it as generally seen. From below the level of the great trochanter the plaster-of-paris bandage (and this is of course, for many reasons, the best of the immovable dressings), can be easily put on, care being taken to properly cut it out and protect it on the inner side so that no undue pressure shall be made upon the region of the genito-crural furrow, and that urine-soiling shall not occur. But to carry it up to and over the iliac crest and inward to the ischial tuberosity—in other words, to apply it over the whole gluteal region, and hold it there—requires an additional girdling of the upper part of the opposite half of the pelvis or the carrying of the supporting dressing obliquely around the body across the opposite lumbar region. Unless this is done, no matter how closely applied at first, in a few hours, or at most days, the dressing will be found to have sprung off, and to be no longer exerting due pressure upon the hip muscles; as the result of which the motion of the joint will be little or not at all controlled, probably no more so than if the bandage had only been carried up over the trochanter major. Even if the immovable dressing has been properly applied and well maintained in position, there is always a chance that in consequence of wasting of the limb sufficient loosening may take place to permit of some displacement of the fragments, to prevent which the weight and extension treatment may be very profitably combined with the fixed dressing.

"Applied early, the immovable dressing saves the patient much suffering, and permits with safety, so far as the fracture is concerned, of such changes of position as will not only greatly add to comfort, but materially lessen the chances of the development of that hypostatic pneumonia which is so often the direct cause of death.

"The more experience I have had of this method of treating neck fractures, the more convinced I have become that by careful application of it we can secure better results with less trouble to our patients and to ourselves than in any other way; and I feel confident that in a large proportion of cases recovery will take place with a limb of good functional value.

"Perhaps in the future it will be clearly shown that the rare occurrence of bony union in the past, has been simply because the fragments of the broken femoral neck have not been kept steadily in apposition, but have, by the permitted motion of the hip-joint and the unrestrained muscular action upon the shaft, been allowed to so separate and play upon each other, that only an imperfect ligamentous repair has been possible."

The Cholera in Spain.

The correspondent of the *Brit. Med. Jour.*, July 11, writes from Valencia: The cholera has spread rapidly in this city and province in the last week, and has equally increased in fatal intensity. It has now entered the upper and mercantile classes, and in numbers of cases its work has been sudden, sharp, and short. People of all ages are cut down in from 4 to 12 hours; and if they survive 36 or 40 hours, by far the majority of these recover. The only sheet-anchor of treatment that I hear of is "laudano de Sidenham" and the disinfectants, crude phenic acid and chloride of lime, called here "polvos de gas." In the suburbs of this city, the places most severely scourged are the Grao or harbor of Valencia and Cabañal. These are both two miles from this, to which runs a tramway every 8 or 10 minutes. They also join on to each other. The latter is the great seabathing quarter of the Valencianos; and at the former there are large floating baths. Both localities are without a shadow of drainage; all the filth and garbage of the houses are thrown into the streets, and when a fall of rain occurs (which has been the case since my last letter), the black stinking mud and filthiness are indescribable. All the houses are damp and offensive and dark. There could not be a better breeding-ground for any kind of zymotic germs. The inhabitants are fishermen of the dirtiest type, harbor-laborers, with a sprinkling of store-keepers. The disease has been most virulent in the Cabañal, and, the Cholera Hospital has been full to overflowing, as also the one at the Grao.

I am sorry indeed to state that some of our countrymen have been cut off in the last three or four days. Captain Nicol (of Glasgow, whom I knew), of the steam-dredger España, going on shore, was seized in the street, where he fell down attacked, and was allowed to remain there three hours, although people were passing, when

one of the men from the dredger saw him, and dragged him to the hospital, where he was denied admittance. He was then taken to an empty schoolroom, where he died, thirty hours later, and was buried in the common grave. The cook of the steamship Ross also died in a few hours; also a Norwegian; and yesterday a young English man, whose parents live here and are iron-founders. He was cut off in twenty hours.

The death-rate to-day shows for this city and province 783 attacks and 412 deaths, which is a fearful increase since my last notice. I told you the troops were then all right. Within the last two days the Colonel and also the Commandant of the regiment "Biscaya" have fallen victims, and 12 or 14 of their men. We have in this city 8,000 troops of all arms, and I am told to-day that the bulk of the men have orders to disperse to their homes. The municipality have been compelled to hire all the men that offer to guard the houses, that is to see that that they are isolated, as their staff of police was not sufficient for the duty. The disease is assuming a fearful aspect among asylums of various kinds, and also in the schools and colleges in and about this city. To-day I see it has broken out in the Orphan Asylum of the San Vicente Ferrer (the patron saint of Valencia), which is a large establishment for the education of boys. The panic in this city is simply indescribable. People are afraid to go out into the streets, and the better class simply shut themselves up in their houses, and will neither take in their accustomed newspaper, nor allow the word "cholera" to be uttered. People are still fleeing north, and the Barcelona train is crowded daily with the panic-stricken. I know two men who, after they were inoculated, fled from their houses, leaving their wives and children. In the city and province of Murcia, matters are equally bad, if not worse; but what surprises me much is, that cholera has taken a sudden leap into the Royal summer quarters of Aranjuez, attacking yesterday 201 and killing 70. A very few days of such work will kill every one in the place. King Alfonso, without leave, made his escape to the place, to visit the sick, returning the same day, and has got his ministers into a broil for allowing him to do so.

I had a letter from an old friend, surgeon to the Lead Mining Company in Linares, Andalusia, who informs me as yet no case has occurred there, and that Cordova and Seville are also free as yet.

I dare say, by the time this reaches you, you will have the details of the falling through of, or the sudden return of, the French Commission sent here to study and examine into Dr. Ferrán's cholera-inoculation, the chief being Dr. Brouardel. They left this suddenly the day before yesterday. I believe they expected to be here a month. The Ferránist paper, *Las Provincias*, gives as the reason for their hurried departure that Dr. Ferrán refused to let them into the secret of how he attenuates his cultures for inoculation. Its adversaries state that the Commission found nothing to study worthy of science, and left in disgust. Since Dr. Ferrán has again been permitted to inoculate, large numbers crowded his place for two or three days. I expect to see, in a short time, the whole so-called "grand discovery" exploded, seeing that both the inoculated and re-inoculated send their quota of victims to the cemetery. As yet, not one word do we hear of a case in Cataluña. What and when the end of this invasion will be, God only knows! If it is so very bad now, at the beginning of the hot season, none can foretell what it may be by the middle of August.

A DECREE gazetted Paris, July 8th, requires any person receiving a traveler from Spain, to notify the fact to the municipality. Posts of observation are also to be created near Toulouse, Foix, and Perpignan.

The Cholera Inoculations.

The *Lancet*, under date of July 11, tells us that although Dr. Ferrán, with the sanction of his Government, continues to prosecute his inoculations of cholera virus, and doubtless to reap a rich harvest from those who can afford to pay him, the medical world has received but little satisfactory evidence of the really prophylactic nature of the proceeding. It appears that a single inoculation is not so certain to ensure immunity as a second one, and that is said to afford absolute immunity for about a year; but, so far as we can gather, there is no evidence for this latter assertion. Indeed, as the practice has only been in force for a few months, it is impossible that its efficacy can have been so tested. The Spanish Commissioners regarded the subject as one worthy of further trial, but came to no conclusion as to its value. The Belgian Commission, upon which Dr. Van Ermengen is serving, has not yet reported. Of the French Commission, Dr. Brouardel has returned to France because he has been refused permission by Dr. Ferrán to examine his samples of cholera lymph or to assist at the inoculation experiments; and Dr. Gibier reports that the preparation and nature of Ferrán's vaccine liquid remains a close secret. He was allowed, however, to witness the inoculation and to examine the "lymph," in which he found comma bacilli. Dr. Gibier no more believes in the protective influence of these inoculations than he would in the power of inoculation with catarrhal products to prevent a violent cold. We are at a loss to understand the refusal of Dr. Ferrán to inform these gentlemen of the precise nature of his inoculation fluid. It is singular, to say the least, that he should have invited inquiry, and then have declined to furnish those who are sent to investigate with full details of the process. Such a course will go far to throw discredit on the whole proceeding, and serve to confirm previous notions as to the improbability of any useful end being obtained from it. It is melancholy to learn from Dr. Gibier that the filth of the Spanish hospitals and improvised infirmaries is inconceivable to one used to French establishments of the same kind. No wonder that he "never saw cholera in a more terrible form" than he there witnessed. And yet faith in protective inoculation grows apace! What is this but a grasping at the shadow of prophylaxis, and taking no heed of the real substance. More lives are being sacrificed by the neglect of sanitary laws than could be saved by inoculation, even if it were as efficacious as it is claimed to be; and nothing can excuse such neglect, which would not be tolerated in any other country.

Arsenic in Burial Soil.

A foreign exchange tells us that a paper which may have some bearing on hygienic as well as on forensic matters, was attributed to the Académie des Sciences by MM. Schlagdenhauffen and Garnier (*L'Union Médicale*, June 20.) The observations made during the past three years by these authors have led them to some interesting conclusions. Arsenic was found to be disseminated in variable, and often in considerable, quantities in the different soils of the Vosges; the red sand appeared to be the richest in this mineral. Burial-places in such localities are thus made in arsenical soil. Arsenic in these soils probably exists in the form of arseniate of iron, which is but little soluble in boiling water, and altogether resists the action of water at the ordinary temperature, whilst it cannot be taken up by rain-water permeating the soil. Arsenic in aqueous solution, in almost any form, left in contact with a ferruginous clay and chalk soil, in the laboratory, is gradually transformed at the ordinary temperature into insoluble derivatives, which are retained by the earth; this transformation is accelerated by the heat of the sand-bath. Any compound preparation of arsenic, even very soluble ones, like arsenate of potassium, introduced into a natural soil of the ferruginous clay and chalk sort, and submittted to the action of rain-water at the temperature of the different seasons of the year, behaves in the same manner in the laboratory, in contact with a soil of the same nature and with an excess of water. If the preparation is insoluble, it remains so; whilst, if it be soluble, it slowly becomes insoluble. and at such a rate that at a depth of .60 to .9 metre beneath the level at which it was placed, no trace of it can be recognized at the end of fourteen months. The results thus obtained are corroborative of those made by Orfila, in 1847, in connection with the Nicolas Noble affair, and prove satisfactorily that arsenic cannot be taken up by the subsoil water, and thus brought into contact with a corpse buried in an arsenical soil.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the week ended July 11, 1885.

Fessenden, C. S. D., Surgeon. Leave of absence extended sixteen days, on account of sickness. July 1 and 9, 1885.

Bennett, P. H., Assistant Surgeon. Granted leave of absence for twenty-two days. July 9, 1885.

Items.

—The Dutch Sanitary Commission has tested the bread from two bread factories, and from 55 or 60 bakers, for alum and sulphate of copper, with the result that the bread from the factories was free from alum, but that a fourth part of the bakers used more or less of it. This general result is published by the Commission as a warning to the bakers, it being intimated that if they are found to continue their adulteration, their names will be published.

—Oleum deeilinæ, or deelina oil, is the name given by Dr. John Roberts, of Chester, England, to a refined petroleum, prepared on the banks of the Dee, and which is recommended for medicinal and surgical use, on account of its greater purity than vaseline. Although it is an oil, little or no greasiness is left on its application; it is readily absorbed, has no odor, and never becomes rancid. Dr. Roberts regards it as "almost a specific" in eczema and kindred diseases of the skin.

—The *Canada Medical and Surgical Journal* says that a lady in a leading town in the Dominion consulted an itinerant professor of medicine regarding her defective vision. She paid her $1 entrance fee to the show for the privilege of speaking to the "Doctor." He informed her she was rapidly losing her sight, but showed her a little bottle which he said would positively cure her. Price only $10. This staggered her. She immediately resolved to "go it blind."

—A case, which well exemplifies the advisability of medical men viewing the body before giving a certificate of the cause of death, is reported from England. A man, named William Mellor, lately perpetrated a most curious imposition. Having been ill and attended by a medical man, he, upon recovery, shaved off his whiskers and beard, and otherwise so altered his appearance, as to induce the surgeon to believe that he was William Mellor's brother, and that the sick man was dead. Having obtained a certificate, he registered his own death, and drew the burial money from a Foresters' lodge. Upon the discovery of the fraud, he decamped.

—G. Bunge, in the *Zeit. Physiol. Chem.*, describes experiments on the form in which iron exists in egg yelk. He is led to believe that food does not contain iron in inorganic combinations, but that it only exists in complex organic compounds which have been formed by the vital processes. It is absorbed and assimilated in this form, and then converted into hæmoglobin. This is, he is aware, apparently at variance with the observations of practical physicians. The apparent contradiction may, he thinks, be explained by the hypothesis that inorganic iron salts prevent the decomposition of the organic iron compounds in the intestinal canal.

—J. C. Ugaz, writing in the *Cronica Médica* of Lima, calls attention to the vesicating property of the inner bark of the walnut tree. He cut a square of about two inches each way, stripped off the outer bark, macerated it in vinegar for a quarter of an hour, and applied it to his arm on going to bed. He was disturbed in his sleep by the discomfort produced, but, wishing to carry out the experiment, controlled himself. After about an hour he awoke in severe pain, and tore off the bandage and piece of bark. In the morning there was no pain, but three large blisters filled with serum and covered with a blackened skin had appeared. The writer also applied the bark to the lip of a boy suffering from hypertrophic lupus, and dusted the blister with calomel. He did not see the boy for eighteen days, and when the latter returned he was completely cured. Señor Ugaz asks, "Can walnut and calomel be specifics for lupus?"